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SUBSTANCE, LANGUAGE, AND SYMBOLIC LOGIC

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In most philosophical circles these days substance is regarded as a defunct category. Current philosophical literature abounds with explicit repudiations of the concept of substance. A popular anthology of American philosophy finds Santayana alone among recent thinkers as an adherent of substance and cites Peirce, James, Dewey, and Whitehead as leading figures in the prevalent onslaught against substance.[1]

By the concept of "substance" I mean the nucleal idea of substance which may be abstracted from penumbral meanings accruing to it through its development in rival systems and different periods of philosophy. For despite constant and sharp disagreement among the great philosophers from Plato to Hegel about the nature and kinds of substances, there is common accord that substance is unitary, continuant, and independent being and that, as a logical corollary to this metaphysical ultimacy, substances are the logical subjects of the judgments that comprise the foundations of knowledge. Naturally this nucleal idea of substance corresponds closely to Aristotle's conception of first substance in the *Categories*. Substances operate as logical subjects: first substances ". . . underlie everything else, and everything else is either predicated of them or present in them."[2] Substances are individuals: ". . . all substance appears to signify that which is individual."[3] A third hallmark of substance is that ". . . it does not appear to admit of variation of degree," so that one substance cannot be more truly substance than another.[4] And fourth, substances are

continuants: ". . . the most distinctive mark of substance appears to be that, while remaining numerically one and the same, it is capable of admitting contrary qualities." [5] A fifth hallmark of substance is independent existence. Intimately linked with the idea of substance as logical subject, the independence or self-existence of substance is announced in Aristotle's assertion that if primary substance ". . . did not exist, it would be impossible for anything else to exist." [6]

I take it that the present gravamen against substance, deriving its force and momentum from nearly all the branches of twentieth-century philosophy, linguistics, logic, epistemology, natural philosophy, psychology, ontology, has been directed against this conception. In the forefront of the contemporary attack on substance are linguistics and symbolic logic. These disciplines have given rise to two charges against substance. (1) Recent discoveries in linguistics disclose that, since the idea of substance is by nature and origin the consequence of languages employing subject-predicate grammar and since some languages do not require this type of grammatical structure, substance is a repudiated notion. (2) Developments in symbolic logic demonstrate that, since logic has allegedly been liberated thereby from the subject-predicate structure which bolstered the conception of substance, symbolic logic has successfully dispensed with substance.

The purpose of my paper is to examine these charges and to lay bare their error and deceptiveness. In this way I hope to indicate that from the viewpoint of these disciplines at least, and despite prevailing claims to the contrary, the idea of substance has not yet been successfully dispelled and further that there are numerous signs promising its reinstatement.

[1]Max Fisch, "The Classic Period in American Philosophy," *Classic American Philosophers* (New York, 1951), pp. 22-23.

[2]*Categories* (Oxford trans.) 5. 2b15-18.

[3]*Ibid.*, 3b10.

[4]*Ibid.*, 3b33.

[5]*Ibid.*, 4a10-12.

[6]*Ibid.*, 2b5f.

[7]Carnap, *Philosophy and Logical Syntax* (Psyche Miniature, 1935), p. 61.

[8]*Twilight of the Idols*, Vol. XVI of *The Complete Works of Friedrich Nietzsche*, trans. A. M. Ludovici, ed. Oscar Levy, p. 21.

[9]*Ibid.*

I. Substance and Language

Since the publication of Trendelenburg's studies of Aristotle's *Categories* in 1846, the contention that the philosophical notion of substance is the reification of features limited to language has become a commonplace. It no longer startles anyone to argue that substance has its sole source in a grammatical distinction which has been mistakenly blown up into a real thing.

To employ the terminology of Rudolph Carnap, substance is a pseudo-object word in the material mode. A syntactical relation properly confined to words within a sentence and governed by the rules of grammar, the subject-predicate relation in the formal mode is disguised as an empirically determined fact consisting of a thing and its properties. Accordingly, the substantial thing is merely the result of hypostatizing classes of words. The sentence, "The rose is a thing," is a pseudo-object sentence which seems to be about roses and things but is actually about words, an appearance which can be rectified only in the following translation: "The word 'rose' is a thing-word."[7] Thus the moral to be drawn is that the word "substance" should always be rendered "grammatical subject."

Nietzsche, another philosopher of language, found the root of the supposed error in a deeper psychological confusion, since ". . . language belongs to an age of the most rudimentary forms of psychology . . ."[8] The culprit is the ego, which is taken for granted "as substance, and the faith in the ego as substance is projected into all things—in this way, alone, the concept 'thing' is created . . . Now we know it (the ego, the will) is only a word."[9]

The charge brought against substance, therefore, is that it is by nature and origin the consequence of languages employing subject-predicate grammar; and the resultant confusion of word with thing, of grammatical subject with metaphysical substance, has arisen lexically and syntactically. Lexically, the words of standard average European languages are separated into different classes by virtue of the functions they perform in sentences constructed through their combination. These classes, called "parts of speech", are somewhat arbitrary, since both their number and their nature vary in different grammars as well as in different texts of the same grammar.

But even the most casual survey of these classes of words will exhibit their partially successful reducibility to substantives and adjectives. With a little imagination one may press substantives to cover nouns and pronouns, and treat the other parts of speech as adjectives predicable of substantives. For example, one may regard the verb as an action or passion (that is, an adjective) of a substantive, an adverb as an adjective of an adjective of a substantive, and so on. Turning from the lexical to the syntactical dimension of language, one finds that a sentence in the ordinary language of standard average European is divided into subject and predicate. When a subject or predicate is not expressed in the sentence, its existence is understood.

Of course, this naive substantialist reduction straightway encounters insuperable difficulties when it is projected as true of the objectively real. Lexically, the argument is patently invalid. The same terms parade at one time as substantives and at another as adjectives, undermining any imputation of objectivity to the linguistic classifications. The absence of a metaphysical counterpart to these linguistic classifications is evident in three ways. First, some substantives name no entities whatever. The negative indefinite pronoun "nothing" names no noun which names an entity. Nothing cannot be substantialized. The substantive character of the term "nothing" is misleading. Second, some words are both substantival and adjectival, varying with context. Third, an adjective can be transformed into a substantive merely by means of the suffixes of abstractness—for example, "ness"—so that, if the linguistic classification of a term evinced metaphysically real properties, every adjective could be converted into a substance.

Syntactically, the distinction between subject and predicate is also mainly linguistic and devoid of metaphysical import. Some sentences do not conform to the simple subject-predicate structure. In the first place, some sentences have more than one subject. In the second place, sentences often express relational structures which are blurred by the subject-predicate form. In the third place, sentences cast in this ordinary form neglect the nature of variables and their ranges, so that sentences expressing propositions of different logical

[10] *The Principles of Logic.* 2nd ed. (London, 1922), I, 22.

[11] "The Relation of Habitual Thought and Behavior to Language," *Collected Papers on Metalinguistics* (Washington, D.C., 1952), esp. pp. 78-80.

types assume the same grammatical form. Thus logical structures unmanageably burst through the subject-predicate grammar at several points; and the attempts to straightjacket these logical structures within the forms of ordinary grammar reduce logic, as F. H. Bradley has remarked, to "a mere struggle between torturers." [10]

Recent linguistic research has underscored the metaphysical deceptiveness of language. Benjamin Whorf has argued that the Hopi, for the leading instance, have a grammar without a subject-predicate form, have no conception of substance, have ideas of time unlike our own, and enjoy a language more sensitive than ours to the event and process character of reality and experience.[11] Although Whorf's thesis is imprecise in that it does not specify whether the language determines the conceptual framework or conversely or mutually, and although, even should it be rendered precise, it is methodologically unverifiable because no experimental test can be designed for it, still it confronts any advocate of substance who bases his argument upon the structure of the language he uses with the necessity of facing squarely the fact that there is a pluralism of language structures.

Furthermore, suppose that the origin of the idea of substance is demonstrated to lie in the syntax of a specific language or family of languages. The putative implication that, since there is a plurality of languages with differing syntax, the idea of substance is an error lacks cogency. For such an argument is an instance of the genetic fallacy, of confounding the origin of the idea in question with its nature. The validity of an idea is not impugned by considerations regarding its origin, unless it can be shown that the origin and the nature of the idea are identical. But the proposition that the nature of the idea of substance is identical with the class of grammatical subjects belonging to a given family of languages is tantamount to extreme nominalism of the type indicated in my previous citation of Carnap (a type which Carnap himself has subsequently abandoned). This nominalism conceives all entities as solely linguistic; and apart from its untenability because of the fact that language is mainly "about" entities which are real in some extra-linguistic sense, it moreover paradoxically renders as much support to the term "substance" as to any of its rivals, since it is universally employed by a major family of languages.

No one as yet has proposed that we abandon ordinary English and take up Hopi, but it has been suggested that we abandon metaphysics. Morris Lazerowitz, who has also spotlighted language as the source of the erroneous doctrine of substance, has absolved "ordinary, *unphilosophical people*" of blame.[12] Accordingly, the metaphysics of substance is ". . . produced by a concealed *revision* of ordinary subject-predicate sentences, by a manœuvre with language, and not by the subject-predicate form of discourse itself. It is what *metaphysicians* have done with words . . ." [13] Metaphysicians, in effect, stand accused of tampering with the ordinary grammatical structure of a sentence and imposing upon the idea of the grammatical subject a fictitious subject of attribution inaccessible to knowledge. They manufactured a substratum which cannot be known, so that "the word 'substratum', in the sense of something 'in which properties inhere but which is distinct from them,' has been given no application." [14] Pinning the problem of substance to the substrate and dubbing it linguistic, Lazerowitz simultaneously exonerates ordinary language and convicts the metaphysicians. Since, however, his argument rests on the identification of substance with the Lockean substrate, it does not affect the defense of substance as unitary, continuant, and independent beings. Indeed, so far as Lazerowitz wants to preserve the nouns of ordinary language in their formal role as subjects of sentences without doing as the substrate theorists do and stripping the entities they denote of all empirical content, he may be deemed a proponent of the nucleal idea of substance within the limits of linguistic analysis.

Yet the currency of the claim that "'substance', in a word, is a metaphysical mistake, due to the transference to the world-structure of the structure of sentences composed of a subject and a predicate" [15] has spurred recommendations for remedy. Bertrand Russell has proposed a new way of speaking which replaces subject-predicate attributions like "this is red" with spatio-temporal descriptions like "redness is here," and which treats adjectives like "red" as names

[12]*The Structure of Metaphysics* (London, 1955), p. 165.

[13]*Ibid.*, p. 149.

[14]*Ibid.*, p. 154.

[15]Bertrand Russell, *A History of Western Philosophy* (New York, 1945), p. 202.

[16]*Inquiry into Meaning and Truth* (New York, 1940), pp. 120-22.

[17]"The Indestructibility and Immutability of Substances," *Philosophical Studies* (April, 1956), II, No. 3, 48.

[18]*Adventures of Ideas* (New York, 1949), p. 169.

instead of predicates.[16] This proposal at least equals in whimsey the hypothetical suggestion that we abandon English and use Hopi. But in addition to its social impracticality, the proposal does not eradicate what it is designed to eradicate. Suppose that a pure language of spatio-temporal descriptions of qualities is semantically possible. Pragmatically it is impossible. For the very use of the language adds to the semantical system a nonsemantical entity—the user. The entry of the user of a language of spatio-temporal descriptions of qualities not only determines the spatio-temporal situation of the system egocentrically relative to the user; but also to be able to use the language, to form the sentences, the user must have at least the unity of being a user; he must endure through a time span requisite at least to complete his usage, and he must, *qua* observer in the system and describer of its qualities, be independent of the qualities he describes. Thus he must be an instance of the nucleal idea of substance.

If this contention that the user of language must be substantial is challenged on the grounds that it prejudges the principle under question, then proleptically the rejoinder is that otherwise the putative nonsubstantiality of the user is prejudged. Hence each side is determined independently of the evidence and prior to its consideration to speak a certain way—the one, we may say, prosubstantialistically, the other contrasubstantialistically. And a final decision on so fundamental an issue can never be settled by empirical studies of language alone. Such studies may chasten the rare metaphysician in a hurry, but they do not force the ostracism of substance. As Neil Wilson has frankly put it: ". . . ordinary language is a substance language, and . . . there is no real practical possibility of abandoning this language type. Therefore, if there really is 'a problem of substance,' then we shall have to get cracking on it."[17]

II. Substance and Symbolic Logic

In a chapter outlining diverse cosmologies, Alfred North Whitehead commented: "The modern outlook arises from the slow influence of Aristotle's Logic, during a period of two thousand years."[18] The

crux of the matter is the close interdependence of general philosophical notions with particular logical concepts, of metaphysics and cosmology with the logic of subject and predicate, substance and attribute. The unfortunate upshot of this substance philosophy is that ". . . it leaves out of account the interconnections between things." [19]

In a similar vein, Ernst Cassirer took issue with the Aristotelian logic in *Substance and Function.* He charged that ". . . it is the basic conception of *substance* to which the purely logical theories of Aristotle constantly have reference" [20] and that the unhappy consequence is that the ". . . category of relation especially is forced into a dependent and subordinate position . . . relational determinants are considered in so far as they can be transformed, by some sort of mediation, into properties of a subject or a plurality of subjects." [21]

Evidence in support of the claim that Aristotle's logic stunted the nature and role of relations is found in his treatment of the category of relation as a relative term attributing a property of a substance such that some other substance possesses a correlative property.[22] A modern exponent of the Aristotelian logic, W. E. Johnson, elaborated a highly technical theory in defense of this reduction of relations to adjectives of substances. "For logical purposes," he wrote, "there is no fundamental distinction between such a relational predicate and an irrational [*sic*] predicate . . . I hold that it [a relation] can be treated as an adjective predicated of the substantive couple . . ." [23] Such an adjective is a transitive adjective, one which ". . . when analysed exhibits a reference to some substantive other than that which it characterises. Thus we may characterise a certain child by the adjective 'liking a certain book,' or a certain book by the adjective 'pleasing a certain child.'" [24] Johnson proposed a technique of constructing substantive-couples and adjective-couples, so that in the relational proposition "x is greater than y," by employing this technique, we get the substantive-couple "x to y" and the adjective-couple "greater than to less than." How are the adjective-couple and the

[19]*Ibid.*

[20]*Substance and Function, and Einstein's Theory of Relativity*, trans. W. C. and M. C. Swabey (Chicago, 1923), p. 4.

[21]*Ibid.*, p. 8.

[22]*Categories* 5. 6b25ff.

[23]*Logic* (Cambridge, 1921-24) Part II, pp. xii-xiii.

[24]*Ibid.*, Part I, p. 203.

[25]*Ibid.*, p. 205.

[26]*Ibid.*, p. 207.

[27]*Ibid.*, p. 209.

[28]*Ibid.*, p. 212.

[29]Paul Marhenke, "The Reality of Relations," *Studies in the Problem of Relations*, "Univ. of California Publications in Philosophy" (1930), XIII, 182.

substantive-couple related? In the same way a substantive and an adjective are related. "Thus the relation of substantive-couple to adjective-couple is the same as that of an ordinary adjective to an ordinary substantive; and just as the latter are united through the characterising tie, so are the former . . ." [25]

Now it should be clear that Johnson's proposal will not do. The relation between substantive and adjective—for example, "The rose *is* red"—is expressed by the copula *is*, which functions as a characterizing tie. The substantive-couple "*x* to *y*" and the adjective-couple "greater than to less than," however, would make obvious nonsense if expressed in the same manner. To remove the nonsense Johnson substituted "is-as" for "is" and contrived the formula "*x* to *y* is-as greater than to less than." "The copula 'is-as' marks a statement of analogy." [26] Close scrutiny of the formula reveals that the original relation between *x* and *y* has now exploded into a relation between *x* and *y* in relation to a relation between the initial relation and its correlative. Perhaps to evade such a result Johnson devised the coupling tie. "In the phrase '*x* to *y*' the word *to* has been chosen to indicate this tie, and hence the effect of the coupling tie is to construct a substantive couple." [27] Thus Johnson contended that the coupling tie is not a relation: ". . . the coupling of terms is not a *mode of relation* . . . for which another mode of relation could be substituted; for, if they were uncoupled . . . the unity would be destroyed." [28] But upon examination this contention is discovered to be untenable. The couple is a unity. Remove the tie, and it is no longer such. Is it a unity by virtue of the tie? No, the tie cannot relate, integrate the two; it is not a relation, and only a relation can do that. Why, then, retain the tie? Nor does the possible reply that the coupling tie holds of all particular relational instances put down the question, for this is tantamount to admitting that the coupling tie is the form of relation in general. As one critic put it, employing Johnson's very terminology, "The coupling tie is a relational determinable, with respect to which any specific relation is a relational determinate." [29]

The failure of Johnson's program to reduce relations to adjectives, technically the most elaborate and conceptually the most astute attempt, should be sufficient warning to any future exponent of a

similar doctrine. Possibly such an attempt is necessarily foredoomed, because it confuses a relation with a relational quality or property. The distinction between the two has been sharply drawn by G. E. Moore: "If A is the father of B, then what you assert of A when you say he is so is a *relational property*—namely, the property of being father of B; and it is quite clear that this property is not itself a *relation*, in the same fundamental sense in which the relation of fatherhood is so . . ." [30]

Upon relations, Whitehead's "interconnections between things," symbolic logic places supreme value. Because of this emphasis, it is often alleged that symbolic logic rejects the concept of substance as obsolete. Among logicians has been encouraged an attitude candidly expressed by Bertrand Russell: ". . . most of us, nowadays, do not accept 'substance' as a useful notion." [31] Nevertheless, just as logic cannot reduce relations to adjectives, I submit that logic, despite the claims of contemporary symbolic logicians, cannot dispense with substance for two sets of reasons.

In the first place, relations require terms. Otherwise there would be nothing for relations to relate; and, as F. H. Bradley has shown in a negative dialectic directed at disclosing the unreality of relations,[32] unless relations can relate they are palpably self-contradictory and hence unreal. Furthermore, the terms relations relate cannot be mere qualities, because qualities are dependent beings; and since relations, too, are dependent in the sense that without terms to relate they cannot be, substantial entities to support the qualities and the relations are necessary. Also, unless there are individual substances in which all qualities including relational qualities or properties inhere, there would be no unity between the initial quality and the relational quality sequent to its relation to other qualities; for such a unity of qualities is derived from the substance, and without it the qualities would be pulverized into infinities of unrelatable qualities. Relations therefore presuppose substances.

In the second place, there are relevant to symbolic logic recognizable substantive factors which no logician can ignore. Consider the

[30] *Philosophical Studies* (London, 1922), p. 281.

[31] *Human Knowledge: Its Scope and Limits* (New York, 1948), p. 88.

[32] *Appearance and Reality*. 2nd ed. (London, 1920), pp. 21 ff.

[33] *Inquiry into Meaning and Truth*, pp. 94-107.

[34] *Methods of Logic* (New York, 1950), pp. 196 ff.

proper name, a term which refers, or applies, to a single entity—person, place, or thing. It signifies a single entity and is therefore a singular term. While Russell has classified abstract nouns like "redness" as proper names in that they refer to recurrent yet singular entities,[33] I propose a closer adherence to ordinary usage. By "proper name" I mean a term which refers to a single entity of the type known as a particular or concrete individual—as an identity or unique unity of diverse properties, a persistent or continuant identity in time, and a being possessing independent existence in some degree. Now, all three conditions need not be met in every application of a proper name; but in all applications at least one condition is met.

Examples of proper names are the words "Bulganin" and "Russia" in the proposition "Bulganin rules Russia," expressed symbolically thus: $(\exists x)\ (\exists y)\ [(Rx,y)\cdot(x=x_1)\cdot(y=x_2)]$, where the backward epsilon "$\exists$" stands for the existential quantifier "there exists . . ."; "x" and "y" for variables for which values satisfying the quantifiers and the predicates can be substituted; "$\cdot$" for logical conjunction "and"; the equality-sign "$=$" for "is identical with . . ."; "R" for the relational predicate "rules"; "x_1" for "Bulganin"; and "x_2" for "Russia." Although Bulganin and Russia belong to ontologically different kinds of entity and although this radical difference is blurred by the fact that symbolization treats them alike, the employment of arguments with subscript numerals evinces the further radical ontological difference between such arguments on the one hand and predicates and quantifiers on the other. Even the employment of a less cumbersome technique of symbolization, as proposed by W. V. O. Quine,[34] does not alter the ontology of the situation. For whereas this technique eliminates subscript numerals and employs free variables, so that instead of the formula above we get Rx,y (x as Bulganin, y as Russia), still, it is important to note that here there is a prelogical interpretation of the free variables limiting their application to single objects; that is, particular or concrete individuals.

Thus Quine's treatment of the proper name presupposes a prelogical step to correlate the name with an actual existent entity. This prelogical interpretation is avowedly ontological, denying that it is possible to remain ontologically neutral once a logical system is interpreted, since the construal of variables as having entities of any kind

as values is tantamount to the acknowledgment of such entities as existent. And the ontology is outspokenly nominalistic. It countenances no entities but individuals. Quine writes:

> One may admit that there are red houses, roses, and sunsets, but deny, except as a popular and misleading manner of speaking, that they have anything in common. The words "houses", "roses", and "sunsets" are true of sundry individual entities which are houses and roses and sunsets, and the word "red" or "red object" is true of each of sundry individual entities which are red houses, red roses, red sunsets; but there is not, in addition, any entity whatever individual or otherwise, which is named by the word "redness", nor, for that matter, by the word "househood", "rosehood", "sunsethood." [35]

Prima facie it would be easy to identify the nominalistic individual with the nucleal idea of substance defended in this essay, for what is substance if it is not individual? But such an identification cannot be made; and the reason, I submit, is that the proponents of the new nominalism, despite their elaborate logical machinery, have never fashioned an acceptable definition of what an individual is. In *The Structure of Appearance*, for example, Nelson Goodman undertakes a nominalistic essay to construct a system which interrelates predicates holding solely of individuals; yet when he confronts the concept of the individual, he deprives the individual of those signs which would normally be indicators of individuality. He writes: ". . . an individual may be divisible into any number of parts; for individuality does not depend upon indivisibility. Nor does it depend on homogeneity, continuity, compactness, or regularity." [36] What intrinsically is an individual? "An individual is simply a segment of the world of experience, and its boundaries may be complex to any degree." [37] By conceding indeterminate variability to the character of individuals, Goodman perceives that the ultimate principle upon which his nominalism depends cannot be sharply distinguished so long as classes

[35]"On What There Is," *Review of Metaphysics* (1948); reprinted in *From a Logical Point of View* (Cambridge, 1953), p. 10.

[36]*Structure of Appearance* (Cambridge, 1951), p. 42.

[37]*Ibid.*

[38]*Ibid.*

[39]*Ibid.*, p. 43.

[40]Cf. *ibid.*, pp. 199 ff.

[41]Cf. *ibid.*, pp. 107 ff.

are denied, so that ". . . if no classes or other nonindividuals are recognized, there is nothing to distinguish individuals from."[38] ". . . in a nominalistic system, '(is an) individual' is a universal predicate and so of little use."[39]

Possibly my contention that the new nominalism, despite its emphasis on individuals, lacks an acceptable concept of individuals may be put aside by the rejoinder that I am imposing a demand which it need not and cannot meet. The demand is to state what individuals are, to define individuality; and this it cannot do since such a definition would readmit a universal—namely, the universal of individuality. But waiving considerations whether discussion of individuality constitutes discussion of a universal, such a rejoinder is certainly unconvincing, because unless knowledge of what individuals are is possible, it makes little sense, as Goodman apparently realizes without recognizing the upshot, to insist that all entities are individuals. Still, the new nominalist may reply that for logical purposes it is sufficient to admit only entities of an individual sort like those mentioned in the citation from Quine—houses, roses, sunsets, indiscriminately—and to halt inquiry short of any further investigation into what they are. Such a reply would leave the ontological question undecided. The term "individual" becomes a mask for a multitude of ontologically different entities—some abstract, others concrete, some universal, and others particular.[40] Thus the nominalism is a strange one, founded upon either a realistic or a particularistic concept of individuals—realistic if its basic units are taken to be nonconcrete qualitative elements (*qualia*), and particularistic if its basic units are taken to be spatially or temporally bounded particulars (events).[41] The ontological question, however, cannot be suspended in this manner; for while it is permissible to halt inquiry in certain directions for purposes of a specialized investigation, philosophy must always be ready to push on. The nominalists deserve much credit for the current re-examination of the ontological foundations of logic; but their ontology is sketchy and wobbly, because ontology is not exhausted in reflections on logic alone; and to admit it into a discussion of logical issues is to allow entry to other crucial questions. To assert that to be is to be the value of a variable and that the values of variables are individuals in an ontological sense is to

permit that these ontological individuals may be examined and found to be substances consonant with the nucleal idea of substance. The nominalistic program in symbolic logic allows an opening for the reinstatement of substance, although in all probability the repercussions of the return of substance will radically alter the aspect of this nominalism, converting it into a moderate neo-Aristotelian realism.

It has been my intention to deny the claim that symbolic logic, emphasizing relations rather than logical subjects, has thereby succeeded in discarding substance. I have argued that, on the contrary, relations dialectically presuppose substances and that, moreover, even within the formalized language of symbolic logic, recalcitrant substantive factors remain. Accordingly, I have sought to concentrate on the status of proper names in symbolic logic. I have maintained that Quine's treatment of proper names is linked with a nominalistic thesis concerning the foundations of logic; and, considering this nominalism as it has been developed by Goodman, I have suggested that, regardless of its lack of a satisfactory concept of individuals, it has opened the way for investigations which may mark the total and explicit return of substance. As the starting point of the present discussion of substantive factors in symbolic logic is the proper name, an approach vis-à-vis descriptions is in order, since logicians have sometimes held that proper names are replaceable by descriptions. Because of the linguistic advantage in having all singular terms of one type, even a self-styled nominalist like Quine has embraced the procedure.[42]

The substitution of descriptions for proper names renders the proper name "Socrates" thus: $(\imath x)$ (x was a philosopher $\cdot$ x drank hemlock), where the inverted iota is the description sign meaning "the." Obviously the description must be indefinitely augmented, involving all the predicates necessary to complete the description of Socrates. Ultimately the total list of such predicates is conceived to be identical with Socrates. This procedure, which underscores the primacy of predicates, tends to equate the concrete individual Socrates with a congeries of attributes. If the attributes are particulars, then each predicate in the description is a proper name; and there is no principle governing the inclusion of the particulars in one

[42] *Methods of Logic*, p. 219.

collection. If the attributes are universals, then it implies the highly dubious ontological thesis that a list of universal properties can really exhaust an individual being. Furthermore, the replacement of proper names by descriptions is entangled in the logical difficulty that into these descriptions inevitably enter proper names. For example, the description of the formula above augmented indefinitely would include "x lived in Athens." The elimination of these proper names demands new descriptions which in turn introduce still other proper names. The regress is infinite unless halted by the admission of irreplaceable proper names.

The issue is additionally complicated by the presence of the iota-operator $(\iota -)$, which supports the suspicion that ineradicable substantive elements lurk in symbolic logic, since it indicates that there is one entity and but one entity which the description designates. But as in the case of numeral-subscript arguments, so in the case of the iota-operator, means have been contrived for its elimination. Consider, for example, the description "the author of *Waverley*" symbolized thus: (ιx) (Ax,y) (y means *Waverley*). Here "A" stands for the relation "author of," while the iota-operator makes explicit that the descriptive phrase designates one and only one entity. The iota-operator can be abandoned if, and only if, the application of the description to one and only one entity can be assured by some other device. Quine has contrived such a device by substituting the existential quantifier for the iota-operator and appending an identity statement between two arguments, one of which is bound by the existential quantifier and the other of which is a free variable employed in the same manner as free variables substituted for proper names, so that instead of the preceding formula the following is given: $(\exists w)$ (x) $(Ax,y \cdot y = w)$. Prominent in this formulation are the identity-sign and the existential quantifier. Here the identity-sign is patently a linguistic principle, inserted between two differing terms naming the same object. But its successful functioning depends upon adherence to Quine's theory of naming. Thus the introduction of the identity statement in the symbolization of description, whereby the iota-operator is eliminated and an existential quantifier binding an argument explicitly identified with a free variable is employed,

presupposes the prelogical interpretation that it applies to one and but one object.

The symbolic logician is therefore compelled to face up to the substantival character of the proper name. He may proceed according to Quine and the new nominalists and so allow the possibility of substance at the outset by confining the proper name to situations in which it is correlated with a certain entity which may be substantial. Or he may proceed te reduce proper names to descriptions, so that the iota-operator designates a substantival factor and the issue is merely postponed to another level. Or he may eliminate the iota-operator by adhering to Quine's theory of naming, in which case the possibility of substance is again admitted. Thus it should be transparent that symbolic logic alone does not exclude substance, and the claim that it rejects substance can be dismissed.

III. Conclusions

In this paper I have examined the current gravamen against substance from the standpoint of linguistics and symbolic logic. Defending the nucleal idea of substance as unitary, continuant, and independent entity, consonant with Aristotle's concept of first substance, I have maintained, first, that linguistics cannot decide the issue against substance since (*a*) the relationship between language and philosophy is never clear as to whether language determines philosophy or conversely or mutually; (*b*) the allegation that, if the origin of the idea of substance can be traced to language, its nature is linguistic is an instance of the genetic fallacy, or it presupposes an extreme and untenable nominalism which equates all beings with words; (*c*) the argument is sometimes levelled against a non-Aristotelian conception of substance, for example, Locke's substrate, and so does not affect the nucleal idea of substance; and (*d*) the proposal to construct language devoid of substantival terms is pragmatically impossible because with the introduction of a user a substantial entity re-enters the language system. I have maintained, secondly, that symbolic logic has not eliminated substance since (*a*) the allowance for relations in logic does not rule out substances, and, indeed, dialectically relations presuppose substances; (*b*) symbolic logic employs substantival terms like proper names, and when it attempts to replace them in its sym-

bolic formulas, then it must resort to other such substantival terms like the iota-operator; and (*c*) the resurgence of nominalism within the philosophy of symbolic logic, once an adequate conception of the individual is formulated, opens the way for the recognized reinstauration of substance.

APROPOS OF ART AND CONNATURALITY

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Owing, doubtless, to the bifurcated influence of contemporary thought, which is engaged on the one hand in bloodless analysis and on the other in an impassioned, voluntaristic emphasis on the nonintellectual, Thomists have of late been talking a great deal about connatural knowledge. Indeed, in the encyclical *Humani Generis*, Pope Pius XII has seen in connatural knowledge a refutation of the claim that Scholastic thought does not pay sufficient attention to the role appetite plays in knowledge.

> Never has Christian philosophy denied the usefulness and efficacy of good dispositions of soul for perceiving and embracing moral and religious truths. In fact, it has always taught that the lack of these dispositions of good will can be the reason why the intellect, influenced by the passions and evil inclinations, can be so obscured that it cannot see clearly. Indeed St. Thomas holds that the intellect can in some way perceive higher goods of the moral order, whether natural or supernatural, inasmuch as it experiences a certain "connaturality" with these goods, whether this "connaturality" be purely natural or the result of grace; and it is clear how much even this somewhat obscure perception can help the reason in its investigations.[1]

In what follows, we will first examine the meaning of connatural knowledge in the moral order and then St. Thomas's use of the term "connatural" in other contexts. Then we will try to see why, if the notion of affective connaturality is to be extended to the realm of art, one must distinguish between the habit of art and poetic knowledge, as Maritain has done.

1. Judgment and Connaturality

In the three texts of St. Thomas Aquinas most often referred to when the question of connatural knowledge arises, we find him talking about judgment as the act of the wise man. There are two kinds of wisdom and consequently two kinds of judgment. With regard to what is to be done, there are two judgments which are relevant. The one is that which can be given by one who possesses moral science; such a man can judge about virtuous acts even if he himself does not possess virtue. Of this man, we would say that he has a cognitive grasp of ethical matters and judges *per modum cognitionis*. Another type of judgment in moral matters is that made by the virtuous man who may or may not have learned moral science. When he judges what is to be done, he is involved in a more than cognitive way, since he is inclined toward what ought to be done by the virtues he possesses. His judgment, accordingly, is one *per modum inclinationis*.[2]

It is this second kind of judgment that St. Thomas, in another text,[3] calls a judgment which is based on a connaturality with the things which are to be judged. The first kind of judgment, that *per modum cognitionis*, is correct because of a perfect use of reason. The rectitude of the judgment based on connaturality is due to something other than intellect. It must be kept in mind that the act of judging is always an act of intellect;[4] it is not that something other than the

[1]A. C. Cotter, S.J., *The Encyclical "Humani Generis," with a Commentary* (Weston, Mass.: Weston College Press, 1951), Par. 34, pp. 37-39.

[2]"Dicendum quod cum iudicium ad sapientiam pertineat, secundum duplicem modum iudicandi, dupliciter sapientia accipitur. Contingit enim aliquem iudicare uno modo per modum inclinationis, sicut qui habet habitum virtutis, recte iudicat de his quae sunt secundum virtutem agenda, inquantum ad illa inclinatur; unde et in X Ethic. dicitur quod virtuosus est mensura et regula humanorum actuum. Alio modo per modum cognitionis, sicut aliquis instructus in scientia morali posset iudicare de actibus virtutis, etiam si virtutem non haberet" (St. Thomas Aquinas, *Summa Theologiae*, I, q. 1, a. 6, ad 3).

[3]"Dicendum quod sicut supra dictum est sapientia importat quamdam rectitudinem iudicii secundum rationes divinas. Rectitudo autem iudicii potest contingere dupliciter: uno modo, secundum perfectum usum rationis; alio modo, propter connaturalitatem quamdam ad ea de quibus iam est iudicandum. Sicut de his quae ad castitatem pertinent, per rationis inquisitionem recte iudicat ille qui didicit scientiam moralem; sed per quamdam connaturalitatem ad ipsa recte iudicat de eis ille qui habet habitum castitatis" (*ibid.*, II-II, q. 45, a. 2).

[4]*Ibid.*

[5]*Prov.* 10:23. Cf. *ST*, II-II, q. 47, a. 2, ad 1.

[6]Cf. Cajetan, *Com. in* Sum. Theol., I-II, q. 58, a. 5.

[7]*Ibid.* (ed. Leonine, No. 8).

[8]St. Thomas, *De Virtutibus in Communi*, a. 6, ad 5.

intellect makes the judgment when connaturality is spoken of, but that the rectitude of the intellect's judgment must be due to something outside the intellect itself.

The emphasis in the above-mentioned texts is on practical wisdom, and what is alluded to as connaturality is brought out quite clearly by St. Thomas in his analyses of the judgment of prudence which is *sapientia viro.*[5] Prudence is an intellectual virtue, *recta ratio agibilium.* Unlike science, prudence is concerned with contingent and variable things in their very contingency and variability, with what ought to be done here and now in these particular circumstances. The prudential syllogism has for its major a rather universal proposition, one grasped in a purely cognitive way, *intra limites intellectus;*[6] for example, the goods of another ought to be returned. What prudence must do is see particular circumstances in the light of this common principle. The common principles which serve as the major of prudential syllogisms may be drawn from the diligent inquisition of moral science or may be something absolutely of natural law. However it is had, what is of present interest in the reasoning of prudence is the minor. How will prudence judge in this particular case when it is a question, say, of this borrowed book, whose permanent possession would be a great good? One can accept the universal statement that what belongs to another should be returned; in an ethics class one may find it relatively easy, within the confines of a fictive case, to apply the principles to "particular" circumstances. But now, here and now, what is the person's judgment about returning this borrowed book? He is involved in the judgment of the here and now, and the history of his past actions enters into the reckoning, the kind of person he is. *Qualis unusquisque est, talis finis ei videtur.*[7] The judgment of the particular circumstances, the minor of the operative syllogism, depends for its rectitude on the appetitive condition of the person who is to act. The judgment is *extra limites intellectus* in the sense that the appetite influences the judgment of reason. What is required here and now is not theoretical truth but the practical truth which is goodness.[8]

The truth of the speculative intellect is quite in keeping with the movement of the intellect relatively to things. The intellect is said to be true insofar as it is in conformity with reality, and the properly

cognitive mode consists in the assimilation of things to the intellect. The intellect receives things, not in the manner in which they exist in themselves, but rather in its own immaterial mode. In order for a material thing to be known intellectually it must be separated from the mode belonging to it as it exists; that is, from its materiality and consequent singularity. Intellectual knowledge is abstractive, immaterial, universal. Appetite, on the other hand, tends towards things as they are in themselves. We love things for what they are and as they are in themselves. For this reason we could say that the mode of appetite is more existential than that of intellect.[9] Now, something of this conformity with things as they are in themselves, of this existential mode, is present in the notion of the practical truth of the prudential judgment.

Prudence is an intellectual virtue, but a virtue of the practical intellect which seeks knowledge in order to operate. Since prudence is concerned with human affairs, it is to the end of man that it directs individual actions; as is always the case when something is to be done, the end is the principle.[10] The end of man is something which is given, for it follows on the nature of man. This end is something which is known naturally.[11] The considerations of prudence, its

[9]Cf.: "Tertius modus habendi est, quod doctus est ista quae dixit ex quadam inspiratione diviniore, quam communiter fit multis; non solum discens, sed et patiens divina, idest non solum divinorum scientiam in intellectu accipiens, sed etiam diligendo, eis unitum est per affectum. Passio enim magis ad appetitum quam ad cognitionem pertinere videtur, quia cognita sunt in cognoscente secundum modum cognoscentis et non secundum modum rerum cognitarum, sed appetitus movet ad res, secundum modum quo in seipsis sunt, et sic ad ipsas res quodammodo afficitur. Sicut autem aliquis virtuosus, ex habitu virtutis quam habet in affectu, perficitur ad recte iudicandum de his quae ad virtutem illam pertinent, ita qui afficitur ad divina, accipit divinitus rectum iudicium de rebus divinis" (St. Thomas, *In de Divinis Nominibus*, cap. 2, lect. 4).

[10]Cf. Aristotle *Ethics* 1151a16.

[11]St. Thomas, *ST*, II-II, q. 47, a. 6.

[12]"Et ideo ad prudentiam, quae est recta ratio agibilium, requiritur quod homo sit bene dispositus circa fines; quod quidem est per appetitum rectum. Et ideo ad prudentiam requiritur moralis virtus, per quam fit appetitus rectus" (*ibid.*, I-II, q. 57, a. 4).

[13]"Veritas autem intellectus practici accipitur per conformitatem ad appetitum rectum. Quae quidem conformitas in necessariis locum non habet, quae voluntate non fiunt; sed solum in contingentibus quae possunt a nobis fieri . . ." (*ibid.*, a. 5, ad 3). Cf. Cajetan, *Com. in* ST (ed. Leonine, No. 4).

[14]Cf.: "Omnia ergo de quibus hic fit mentio, intantum sunt species prudentiae, inquantum non in ratione sola consistunt, sed habent aliquid in appetitu. Inquantum enim sunt in sola ratione, dicuntur quaedam scientiae practicae, scilicet ethica, oeconomica et politica" (St. Thomas, *In VI Ethicorum*, lect. 7 [No. 1200]).

judgments and its command, must presuppose this end and the rectification of appetite relatively to this end.

> Consequently, it is requisite for prudence, which is right reason about things to be done, that man be well disposed with regard to ends; and this depends on the rectitude of his appetite. Therefore, for prudence there is need of moral virtue, which rectifies the appetite.[12]

It is because the intellect cannot conform to the particularity and contingency of singulars that the judgment of prudence cannot be true with speculative truth. But it is precisely singulars which must be judged when it is a question of commanding an action here and now. From the point of view of cognition, only opinion could be had about singular contingents as singular and contingent. And yet I must make the right decision. The rectitude of my judgment, accordingly, must depend upon something other than intellect.

> On the other hand, the truth of the practical intellect depends on conformity with right appetite. This conformity has no place in necessary matters, which are not effected by the human will, but only in contingent matters which can be effected by us . . .[13]

The truth of the prudential judgment depends upon rectified appetite, appetite determined to the end or good. And since appetite, as we mentioned above, moves towards things as they are in themselves, as they exist, appetite assimilates one to what is desired; one becomes like what one loves, is connatural with it. It is precisely this connaturality which is characteristic of appetite that makes the prudential judgment, which depends upon appetite, a judgment by connaturality or inclination. Moral science, because its consideration of *agibilia* does not entail appetite,[14] judges *per modum cognitionis*. It is precisely the influence of appetite on the prudential judgment of *agibilia* which makes this judgment one *per connaturalitatem*.

2. Virtue and Appetite

The judgment through connaturality, as it figures in the texts cited, is such because of a special dependence on appetite. Why is it that the influence of appetite on the object of intellect makes the judgment connatural? If this is not answered, we shall encounter great difficulties when we find St. Thomas speaking of the habit of principles as proceeding *per modum naturae*. An even greater difficulty arises when we read that the habitus of geometry induces a kind of connaturality with the geometrical. If we speak of connaturality in these last two cases, we are clearly not speaking of affective knowledge. It is therefore imperative that we examine the scope of the term "connatural" in St. Thomas if we are to avoid calling the most perfectly scientific knowledge affective.

In Aristotle's *Ethics*,[15] one reads that moral virtue is more certain than science. The reason given is that moral virtue inclines in the same way as nature does; that is, by determining the appetite to one object. Virtue is generated by accustoming the appetite to a certain mode of operation by repeated acts; this custom becomes a second nature which determines the appetite to one object.[16] Far from settling anything, this raises a series of questions. The intellect, too, is the subject of habits, of second natures; and because of these, the intellect is determined to one. Is not "determination to one" what distinguishes science from opinion?

First of all, we must ask what meaning of certitude is at play in the remark that moral virtue is more certain than art or science. This

[15]*Ethics* 1106b10. Cf.: "Sed virtus est certior omni arte, et etiam melior, sicut et natura. Virtus enim moralis agit inclinando determinate ad unum sicut et natura. Nam consuetudo in naturam vertitur. Operatio autem artis est secundum rationem, quae se habet ad diversa. Unde certior est virtus quam ars, sicut et natura" (*In II Ethic.*, lect. 6 [No. 315]). Cf. St. Thomas, *De Veritate*, q. 10, a. 10, ad 9.

[16]St. Thomas, *De Virt. in Com.*, a. 9.

[17]"Dicitur autem virtus moralis a more, secundum quod mos significat quamdam inclinationem naturalem, vel quasi naturalem, ad aliquid agendum" (*ST*, I-II, q. 58, a. 1).

[18]"Manifestum est autem quod inclinatio ad actum proprie convenit appetitivae virtuti, cuius est movere omnes potentias ad agendum" (*ibid.*).

[19]*Ibid.*, II-II, q. 4, a. 8.

[20]*De Ver.*, q. 14, a. 1, ad 7.

[21]St. Thomas, *De Malo*, q. 6, a. 1.

[22]St. Thomas, *In II Physicorum*, lect. 13 (ed. Pirotta, No. 503).

[23]St. Thomas, *In IX Metaphysicorum*, lect. 2 (Nos. 1789-93). An examination of the difference between intellect and will considered *ad opposita* can be seen in "A Note on the Kierkegaardian Either/Or," *Laval théologique et philosophique*, VIII, No. 2 (1952), 230-42.

[24]Cf. St. Thomas, *De Caritate*, a. 6, ad 8.

is a puzzling phrase because certitude is something we should tend to restrict to reason and science. *Moral* is derived from the Latin *mos*, which has a twofold signification. Sometimes it signifies custom; sometimes it signifies a natural or quasi-natural inclination to do something. "Now *moral* virtue is so called from *mos* in the sense of a natural or quasi-natural inclination to do some particular action." [17] This second meaning of *mos* is, of course, close to the first, for custom is a second nature and gives an inclination similar to that of nature. What is more, the inclination spoken of belongs most properly to appetite.[18] With regard to certitude, it is well to recall the distinction St. Thomas makes between certitude *simpliciter* and certitude *secundum quid*. The first, absolute certitude, is taken from the cause of the certitude; certitude in this sense has degrees insofar as its causes are more or less determined. Certitude *secundum quid* is that taken from the part of the subject, and in this sense that is most certain which is most perfectly proportioned to the intellect.[19] This distinction is reducible to another St. Thomas makes, that between the motive for adhering to a truth and the evidence of the truth. Evidence gives certitude *secundum quid*.[20]

What seems to emerge, then, is this: Moral virtue is said to be more certain than art and science because it gives a more perfect determination to one. Why is this? It is nature in the sense given in Aristotle's *Physics* which is first of all a principle of determination to one.[21] And, in the *Physics*, nature, which always operates in one way, is distinguished from the principle of rational acts.[22] Reason is said to be *ad opposita* and not *ad unum*,[23] even when it is the subject of habits. For example, the physician in knowing health knows its opposite, sickness. The explanation of the *ad opposita* is based on a difference between intellect and will already mentioned and indicates why will better saves the *ratio naturae*. It is because intellect receives things in its own mode that oppositions in things do not preclude intellect's possessing opposites. Appetite, on the other hand, relates to things as they exist, and in existence the presence of one thing *eo ipso* excludes its opposite. Thus appetite is more *ad unum*.[24] A further indication that will is more like nature than is intellect is found in the fact that the former moves as an efficient cause and the latter

as a formal cause.[25] That nature is an efficient cause is seen in its *ratio propria.*[26]

What we have already seen in the analogy of the name *nature* can also be seen by an analysis of the analogous name *virtue.* The definition of virtue given by Aristotle in the second book of the *Ethics*[27] is "that which makes the one having it good and renders his operation good." Given the recurrence of "good" in the definition, as well as the fact that good is the object of appetite, it is difficult to see how we can speak of intellectual virtues. In addressing himself to the difficulty, St. Thomas points out that the reference to the good required for virtue can be either formal or material.[28] A potency is formally related to the good when it bears on it precisely as good, something only appetite can do. A power can be related to the good materially when it bears on a good but not under the formality of goodness. Thus, those habits which have appetite as their subject, or which depend on appetite, are most properly virtues. Those habits, on the other hand, which are neither in appetite nor dependent upon it, can refer materially to the good and be, in a certain sense, virtues. With this as background, St. Thomas goes on to discuss intellectual virtues.

[25]Cf. St. Thomas, *ST*, I-II, q. 9, a. 1, ad 3.

[26]St. Thomas, *In II Phys.*, lect. 1 (No. 294). Cf. *In V Metaphys.*, lect. 5 (No. 810).

[27]*Ethics* II. 5.

[28]Cf. *De Virt. in Com.*, a. 7.

[29]"Dicitur enim aliquis intelligens vel sciens secundum quod eius intellectus perfectus est ad cognoscendum verum; quod quidem est bonum intellectus. Et licet istud verum possit esse volitum, prout homo vult intelligere verum; non tamen quantum ad hoc perficiuntur habitus praedicti. Non enim ex hoc quod homo habet scientiam, efficitur volens considerare verum, sed solummodo potens; unde et ipsa veri consideratio non est scientia inquantum est volita, sed secundum quod directe tendit in objectum" (*ibid.*).

[30]". . . per quamdam electionem voluntarie declinans in unam partem magis quam in aliam" (*ST*, II-II, q. 1, a. 4).

[31]"Unde voluntas imperat intellectui, credendo, non solum ad actum exequendum, sed quantum ad determinationem obiecti: quia ex imperio voluntatis in determinatum creditum intellectus assentit; sicut et in determinatum medium a ratione, concupiscibilis per temperantiam tendit" (*De Virt. in Com.*, a. 7).

[32]"Respondetur enim voluntatem non addere aliquid objecto ex parte veritatis ut possit sufficienter movere quod alias de se non poterat, sed addere aliquid ex parte convenientiae, quia in quod movet voluntas repraesentatur ut conveniens ipsi voluntati, et ex hoc movetur intellectus ad assentiendum illi non quia visum sed quia placens et conveniens. Unde licet objectum obscure propositum non sit sufficiens ad movendum convincendo et necessitando intellectum, est tamen sufficiens ad movendum ad assensum voluntarium: voluntas movendo intellectum reddit illum dispositum ut sit mobilis ab illo objecto, obscuro quoad veritatem, apparente autem quoad convenientiam et complacentiam (saepe enim nobis placent res cognitae in confuso et in obscuro)" (*Curs. Theol., In HamIIae, De Fide*, Disp. 3, VII [Collectio Lavallensis, p. 203, No. 758]).

Both the speculative and practical intellect can be perfected by habits in two ways: first, absolutely and as such, insofar as their acts precede will and move it in the line of formal causality; secondly, insofar as their acts follow on appetite as commanded and elicited by it. Habits generated by acts of the first kind are less properly virtues, since they do not bear on the good formally as such. *Intellectus*, science, wisdom, and art are virtues in this sense.[29] These habits only render the subject capable of operating in a certain fashion; there is no disposition of appetite relative to the good which is consequent on the possession of these habits. In the classical phrase, they make one *potens* but not *volens*.

Those habits of the speculative and practical intellect which follow on the will are more truly virtues, for by them one is made not only capable of acting correctly but also willing to. St. Thomas shows what he means by analyzing faith and prudence.

By faith, the intellect operates *per modum naturae*, and intellect is not moved by its proper object as in the case of science. Rather, in faith, one assents "through a choice of the will turning to one side rather than the other."[30] Will enters into the very specification of the object of faith, and not merely in the line of efficient causality.[31] John of St. Thomas has written some very illuminating pages on the role the will plays in the assent of faith. The will, he says, can add nothing to the apprehension of the object, to its evidence; but it can render it pleasing. Moved by the will (under the influence of grace, of course) determining its object, the intellect assents to the truths of faith because they are pleasing.[32] *Nemo credit, nisi volens.*

Prudence, a virtue of the practical intellect, does not depend upon the will for the determination of its object but only for its end. Given the will's ordination to the end of man, prudence seeks the means of attaining this end. We have already seen its dependence on moral virtue in making its judgment.

An indication of the difference between faith and prudence on the one hand and *intellectus*, science, wisdom, and art on the other can be seen in the fact that a man does not lose the habit of science by not knowing certain truths which pertain to that habit. In the case of faith, however, while faith remains, one cannot believe anything

contrary to faith. The reason given is that science inclines *per modum rationis*, whereas faith inclines *per modum naturae*.[33]

These different habits participate in the *ratio virtutis*, then, in this order: first, moral virtues; then such intellectual habits as faith and prudence; and finally and least properly, *intellectus*, science, wisdom, and art. So, too, with regard to the way in which they imitate nature and incline *per modum naturae*. The same order obtains. Appetite takes priority over intellect in imitating nature; and habits which have appetite as subject or which depend in a special way upon appetite will incline *per modum naturae* more properly than purely intellectual habits.

In the light of this, it should no longer surprise us to find St. Thomas using the notion of connaturality in speaking of knowledge which is in no way affective. *Connatural* means "in accord with nature"; and since *nature* means many things, so too will *connatural*. Thus in speaking of geometry, St. Thomas says that, once one possesses the science, its objects become as it were connatural to the intellect.[34] One might object that St. Thomas is here placing under connaturality what he elsewhere divides against it. Such an objection assumes that *connatural* has only one meaning for St. Thomas; namely, affective knowledge. It is because the habit of geometry is a second nature that its objects become connatural to intellect. One must simply avoid identifying *connaturality* in such a context with the meaning that the same term has in the texts we discussed at the beginning of this paper. And, of course, it is knowledge through affective connaturality that most Thomists have in mind when they speak of connaturality.

What are the advantages and disadvantages of knowledge by affective connaturality with the object? In the practical order, we can see

[33]. . . dicendum quod habitus scientiae inclinat ad scibilia per modum rationis. Ideo potest habens habitum scientiae aliqua ignorare quae ad habitum illum pertinent. Sed habitus fidei cum non rationi innitatur, inclinat per modum naturae, sicut et habitus moralium et sicut habitus principiorum; et ideo quamdiu manet, nihil contra fidem credit" (St. Thomas, *In III Sententiarum*, d. 23, q. 3, a. 3, sol. 2, ad 2). Cf. *ST*, II-II, q. 1, a. 4, ad 3.

[34]Cf.: "Secundum exemplum est de pueris quando primo addiscunt, qui coniungunt sermones quos ore proferunt sed nondum eos sciunt, ita scilicet quod mente intelligant. Ad hoc enim requiritur quod illa quae homo audit fiant ei quasi connaturalia, propter perfectam impressionem ipsorum in intellectum: ad quod homo indiget tempore in quo intellectus per multiplices meditationes firmetur in eo quod accepit" (*In VII Ethic.*, lect. 3 [No. 1344]).

[35]St. Thomas, *In Boethii De Trin.*, (ed. Calcaterra), lect. 1, q. 1, a. 1.

[36]Cf. St. Thomas, *In II Metaphys.*, lect. 5.

that, for better or worse, the condition of appetite exercises a decisive role in the operative syllogism. *Qualis unusquisque est, talis finis ei videtur.* In the theoretical order, custom, connaturality, reason led by appetite, is indispensable at the outset of the intellectual life—and an abiding danger as well. At first, one asents to the truth *quia placens* or because he believes in his master.[35] In either case, appetite enters into the very specification of the object of intellect. But the intellect should eventually proceed *per modum rationis* and assent because of the evidence of the object proposed. The danger of custom in the intellectual life is pointed out by Aristotle at the end of the second book of the *Metaphysics.*[36] One may *want* the poets cited as authorities or he may *want* a mathematical procedure in metaphysics because he finds these familiar and pleasing.

When things are beyond the comprehension of our intellects, affective connaturality assumes a new and awesome importance. We have seen in the remarks of St. Thomas and John of St. Thomas the role which the will plays in the assent of faith. The evidence of its proper object being insufficient to bring about the assent of intellect, the will moved by grace prompts assent. This assent is not absurd, as Kierkegaard thought, for the intellect could not assent in this fashion to something which contradicts what it knows with certitude. So, too, in the gift of wisdom, the influence of the will perfected by charity proportions divine things to the intellect, makes it connatural with them, so that one judges sapientially, referring everything to God.

3. The Virtue of Art

Our analysis of texts has indicated somewhat precisely the role the will plays in connatural knowledge. We will now go on to see why the notion of judgment by affective connaturality or inclination does not apply to the habit of art.

A virtue, we have seen, is a quality which makes the one having it good and renders his operation good; or, as it is also expressed, that which gives not only the ability, but also the inclination to act well. It is the central position of good as the object of virtue which led St. Thomas to distinguish between virtues properly so called and

those habits which are less properly virtues. There is no question here of judging their respective worth, dignity, or desirability. Rather, it is a matter of unequal participation in the *ratio virtutis*. In analogous names, that which most properly saves the *ratio nominis* is not always the most perfect *in re*.[37] Now, since the good enters in a very special way into the *ratio* signified by the name virtue, and since goodness is the proper object of appetite, those habits will most properly be called virtues which have appetite as their subject or which depend in a special way upon appetite. The intellectual virtues of faith and prudence were seen to depend upon appetite as preceding the proper act of reason, and thus they were said to be properly virtues. Of the acquired virtues, *intellectus*, science, wisdom, habits of the speculative intellect, and art, a habit of the practical intellect, were said to be least properly virtues. The will can move these virtues as an efficient cause insofar as their objects are included under the common notion of the good; but these four habits are of themselves only materially related to the good.[38]

What is of interest here, of course, is that art is aligned with the habits of the speculative intellect rather than with prudence when it is a question of how art saves the *ratio virtutis*.[39] Art does not make the one possessing it a good man; it merely makes him capable of judging correctly what ought to be done if the artifact is to be good. *Perfectio artis consistit in iudicando*.[40] In order that a man *use* art well, his appetite must be rectified by moral virtues.[41] Just as in the case of the speculative habits, it does not matter whether the artist is angry, sad, or elated when he operates; the artifact can still be well made. The vices of the artist are no less vices, but they do not necessarily affect his art. An indication of the fact that the perfection of art is in the judgment is the frequently quoted remark of Aristotle that the artist who intentionally makes a mistake is better than one who does so unintentionally; in prudence, however, it is

[37]Cf. St. Thomas, *Contra Gentiles*, I, cap. 34; *De Virt. in Com.*, a. 7, in fine.
[38]*De Virt. in Com.*, a. 7.
[39]St. Thomas, *ST*, I-II, q. 57, a. 3.
[40]*Ibid.*, II-II, q. 47, a. 8.
[41]*Ibid.*, I-II, q. 57, a. 3, ad 2.
[42]*Ibid.*, a. 4. Cf. *ibid.*, II-II, q. 47, a. 8.
[43]Cf. *ibid.*, I-II, q. 57, a. 1.
[44]Cf. *ibid.*, a. 5, ad 3.
[45]*Com. in ST*, I-II, q. 57, a. 5, No. II.
[46]*Ibid.*, No. III.

less wrong to err unintentionally than intentionally.[42] Since judgment is properly of intellect, than, it would appear that art is more intellectual than prudence. Not depending on appetite as does prudence, art does not rely on the rectification of appetite relatively to the end of man. Moral virtues are necessary for the good use of art, but that is all.[43] This is but another indication of art's affinity with the habits of the speculative intellect.

Thus far it would seem that connaturality, an intrinsic dependence upon appetite, has nothing to do with art any more than it has with the habit of first principles or science. And yet to settle for this would seem to be an overlooking of the rather important fact that art is a virtue of the practical intellect. And the practical intellect, unlike the speculative intellect, does not seek knowledge for its own sake but with a view to operation. And, whether the operation is doing or making, the role of the will would seem to be somewhat more central than in speculative knowledge. What is more, St. Thomas tells us that art is true with practical truth, and practical truth is the intellect's conformity with rectified appetite.[44]

On the one hand, St. Thomas had said that art, like science and wisdom, is not dependent upon the rectification of appetite. On the other, he applies the notion of practical truth, conformity with rectified appetite, to art. How can these two affirmations possibly be reconciled?

Cajetan, in commenting on the article in question, devotes the bulk of his treatment to art and practical truth. What distinguishes the practical from the speculative, he argues, is not knowledge but the fact that the former directs.[45] The truth of the direction of the practical intellect must always depend upon rectified appetite. However, Cajetan would distinguish between two meanings of rectified appetite in order to maintain the difference between art and prudence. The truth of the direction of the practical intellect *in agibilibus* is dependent upon conformity with appetite rectified with regard to man's end. The truth of the direction of the practical intellect in matters of art, on the other hand, is dependent upon appetite rectified relatively to the end of art.[46] Cajetan warns the novice in these matters not to confuse the truth of the direction of art with the

use of art. Direction and use coincide in the production of the artifact, but they remain formally distinct.[47]

The difficulty that arises yet again is: What manner of rectification of appetite is required by art? In prudence, this rectification is had by the possession of the moral virtues, having appetite as their subject. Cajetan has made clear that it is not the moral virtues which give the rectification of appetite that art requires. Does this last kind of rectification require virtues? If not, why speak of rectification? If so, what precisely are these virtues supposed to be? Perhaps a glance at the artistic process as described by St. Thomas will dissipate these difficulties.

St. Thomas distinguishes three steps in the actual direction of art.[48] Presupposed by this actual direction are a great many things, of course: the knowledge the artist might have, his experience of life, and so on. But in the actual direction there would be first of all the *intentio finis*, reason proposing to the will the artifact to be made. The next step, the *excogitatio formae*, is the judging of the means necessary to realize the proposed end. It is here, as we have seen, that the perfection of art lies. Now, the question we are asking is, Since the judgment of the means will be true by practical truth—that is, in conformity with rectified appetite—what is required on the part of appetite for this rectification? We have already seen that it does not require the rectification had by means of the moral virtues.[49]

[47]"Adverte namque coincidentiam usus cum directione in arte: et vide quare apparet quod veritas huiusmodi spectet ad usum, et non ad artem. Quamvis enim usus et directio in arte coincidant, distinguuntur tamen saltem ratione: et arti convenit directionis veritas, non ratione usus, sed ratione propriae naturae, quae nata est dirigere non nisi determinata ad directionem ab appetitu recto. In virtutibus autem speculativis, solum usus invenitur pendens ab appetitu" (*ibid.*, No. IV).

[48]*De Ver.*, q. 4, a. 1.

[49]Cf.: "Sed tamen ista regulatio artis in actibus differt a regulatione morali, quia moralis est secundum legem impositam actibus liberis, et juxta rationis dispositionem ad recte agendum, artificiosa vero est dispositio objecti omnino independens a rectitudine et intentione voluntatis aut a lege recte vivendi, sed solum rem ipsam intelligendam aut cognoscendam vel operandam in se rectificans juxta finem artis, non ut rectificetur arbitrium operantis" (John of St. Thomas, *Curs. Theol., In Iam IIae*, Disp. 16, a. 4).

[50]St. Thomas, *De Ver.*, q. 5, a.1.

[51]"Dicendum quod principia artificialium non diiudicantur a nobis bene vel male secundum dispositionem appetitus nostri, sicut fines, qui sunt moralium principia, sed solum per considerationem rationis. Et ideo ars non requirit virtutem perficientem appetitum, sicut requirit prudentia" (*ST*, I-II, q. 58, a. 5, ad 2).

[52]Cf. John of St. Thomas, *Curs. Theol., In IIam IIae, De Donis*, Disp. 18, a. 4 (Collectio Lavallensis, No. 584).

The end of art is contained in the exemplar idea which is present in the mind of the artist. The end of art, unlike that of man as man, is not had *in affectu* as by the moral virtues.[50] The judgment of the means of attaining the opus, then, is not dependent on the condition of the appetite as is the judgment of prudence. St. Thomas's solution of our difficulty is succinct and simple. The will does not require any habitus to perfect it and relate it to the end proposed by art.[51] The appetite does not need any virtues to bring it more surely under the control of art; the judgment of art, therefore, is not affected by appetite. This is why St. Thomas places art with the speculative virtues and not with prudence; and this is also why we cannot say that the judgment of art is one by affective connaturality.

4. Poetic Knowledge and Connaturality

Although no one has maintained that the judgment of art is connatural, it has been held that poetic knowledge—as opposed to, and presupposed by, art—is a type of connatural knowledge. In a paper already lengthy, it would not do to attempt an analysis of these views. Ours will be the much less ambitious task of seeking in the metaphor, the proper instrument of the poet, evidence of connatural knowledge.

If, as we have tried to show, the judgment of the means of realizing the idea, which is the proper act of the virtue of art, does not lend itself to the notion of connaturality, it seems that the creative or exemplar idea does. One can be said to judge connaturally when appetite moves the mind in the order of formal causality, coloring and influencing that which specifies the intellect: when *affectus transit in conditionem obiecti*.[52] When a truth which is above the comprehension of the intellect is presented for assent, the will, under the influence of grace, can render the truth, not evident or intelligible, but pleasing. The consequent assent of the intellect is due to a specifying activity of appetite. Could one derive from this the general rule that whenever a connection is not sufficient to move the intellect in the proper line of evidence and truth, appetite can formally influence the judgment by rendering the connection pleasing?

Poetry is said by St. Thomas[53] to be concerned with things which do not have sufficient intelligibility to force the assent of the intellect. It is because of the lack of truth and cogency that poetry is said to need metaphors in order to seduce reason into assenting. This last remark may be a sign of something which had preceded the poem in the experience of the poet. When one reads *Dover Beach*, he is presented with a judgment on man's relation to the universe. Without hazarding an exegesis of the poem, it could be said that the net conclusion is that one's beloved is the sole refuge in a deluding, malevolent, even irrational, universe. Stated as baldly as this, the idea is not much, but of course that is not how Arnold presents the idea. Appeal is not made directly or solely to the mind; rather, the images and rhythms of the lines get into our viscera and emotions, and the "argument" is rendered pleasing and acceptable. If we accept *Dover Beach* it is not *quia verum est* but rather *quia placens*.

This is hardly revolutionary. Neither does it seem forced to say that Arnold, by writing the poem, is allowing us to share in a way he once looked at things. And, just as our experience in reading his poem is not an exercise in pure reason, neither, we can surmise, was the experience which the poem conveys a totally rational one. (One could say "more than rational"; but this phrase seems to signify something other than a quantitative "more," as if what were meant is "better than rational" or suprarational. Poetry may be more human than science, but it is for all that *infima doctrina*.)

If one takes a rather broad view of metaphor as a seeing of things in terms of other things, one might imagine the poet finding a pleasant *collatio* (later to be expressed in metaphor) to which his intellect can assent. The likening of his love to a rose surely does not appear to the poet as something charged with intelligibility, and yet, in the very confusion of the comparison, there is something which appetite can transform into something pleasant. The expressed metaphor would be a result, presumably, of the judgment of the virtue of art. How best express the collation which has been rendered pleasant? The answer to this question, it would appear, is found in a rational search for the best verbal expression for the previous confused connection in the poet's mind.

[53] *In I Sent.*, prol., a. 5, ad 3; *ST*, I-II, q. 101, a. 2, ad 2.

[54] *Poetics* 1459a5.

It would seem that it is something like this that is intended when poetic knowledge is spoken of in terms of affective connaturality. We have seen that, if one is desirous of applying such connaturality to the realm of art, he must attach it to something other than the virtue of art. Perhaps some such appetitive connaturality is involved in the knowledge of the poet; nevertheless, there would seem to be a more profound and more traditional way of speaking of the knowledge of the poet as connatural, this time using the term to signify something other than the influence of appetite on the judgment of intellect. One thinks of the phrase, *poetae nascuntur*; poets are born, not made. If it is true that a poet is born such, that his physical make-up (not to be understood superficially) and his imagination are especially apt for finding surprising similitudes among things, then his knowledge would be connatural in a much more basic sense of the term. Is this why Aristotle speaks[54] of a gift for finding metaphors, an inborn gift (*ingenium*), not to be learned, following on the very nature of this man who is a poet?

Whichever of these two ways of extending the notion of connaturality to poetic knowledge is chosen, it is certain that there is no place for affective connaturality in speaking of the direction by the virtue of art. Whatever the explanation of it, it is delightfully true that the poet can come upon the world in a grain of sand and render this collation, if not less unlikely, nevertheless pleasing and cogent.

Chronicle

St. Mary's University (Halifax, Canada) announces a special summer seminar, August 4th to 15th, 1958. The Reverend Bernard J. F. Lonergan, s.j., will lecture on his recently published book, *Insight*, mornings 10:00 to 12:00 o'clock, with discussions in the evening. Tuition for the two weeks will be $30.00; board and room are available on campus.

The Metaphysical Society of America will hold its spring meeting at Brown University, Providence, Rhode Island, March 28th and 29th, 1958.

The International Congress of Medieval Philosophy, to be held at Louvain and Brussels, August 28th to September 4th, 1958, has announced a more detailed program. There are to be five plenary sessions in the morning, at which the following general themes will be introduced: (1) on the nature of man and human personality, R. Klibansky (McGill University); on the human situation—corporality and time, M.-D. Chenu, o.p. (Paris); (3) on knowledge and truth, P. Wilpert (University of Cologne); (4) on tendency, will, and freedom, V. J. Bourke (Saint Louis University); (5) on moral and social values, M. de Gandillac (Sorbonne).

DIVINE INFINITY ACCORDING TO RICHARD FISHACRE

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Mr. Charles J. Ermatinger *received his M.A. and is now a candidate for the Ph.D. degree from Saint Louis University. He is the Librarian of the Knights of Columbus Vatican Film Library at Saint Louis University. He has previously written for* Manuscripta, *and* Mediaeval Studies.

While writing his commentary on Peter Lombard's *Sentences* at the University of Paris in approximately 1254,[1] Thomas Aquinas for the first time took up the topic of divine infinity. "Is God's power infinite?" he there asked.[2] Yes, he replied, although that question is not the first which must be faced. Since power is ontologically rooted in being, whether or not God's power is infinite is determined by whether or not His being is so. This latter is infinite, Thomas explained, because of its absolute subsistency—it is completely free from the determination and limitation of matter and of any sort of recipient.[3] Since, then, power, goodness, essence, and all other divine perfections are one with God's very being, they too are infinite.[4]

The position Aquinas then took with regard to divine infinity is thus threefold. Infinity is (*a*) a perfection (*b*) which is predicable primarily of the divine reality itself (*c*) and of power and other attributes only in reference to, and as identified with, that reality. This, too, is the position which he defended during the rest of his teaching career.[5] And in this same position he found a common ground of agreement with a good number of his contemporaries: Bonaventure, Henry of Ghent, Siger of Brabant, and even Albert the Great in his *Summa Theologiae* all agree with him in describing God as infinitely perfect in His very entity.[6]

Many of his predecessors during the previous century, however, seem unaware of such a doctrine. Lombard himself, Robert of

Melun, Peter of Poitiers, Stephen Langton, Hugh of St. Cher, and so on, either attach little importance to infinity or identify it with eternity or incomprehensibility.[7] Still others explicitly exclude infinity from God's essence and apply it only to His power.[8]

The conclusion seems obvious, then, that although the conception

[1]Information on the chronology, as well as on the nature of Thomas's *Scripta super Librum Sententiarum*, can be found in I. Eschmann, "A Catalogue of St. Thomas's Works," in E. Gilson, *Christian Philosophy of St. Thomas Aquinas* (New York: Random House, 1956), pp. 384-85.

[2]*In I Sent.*, d. 43, q. 1, a. 1 (Mandonnet ed., p. 1002), "Utrum potentia Dei sit infinita."

[3]"Et ideo illud quod habet esse absolutum et nullo modo receptum in aliquo, immo ipsemet est suum esse, illud est infinitum simpliciter" (*ibid.*, p. 1003).

[4]"Et ideo essentia ejus infinita est et bonitas ejus et quidquid aliud de eo dicitur, quia nihil eorum limitatur ad aliquid sicut quod recipitur in aliquo limitatur ad capacitatem ejus. Et ex hoc quod essentia est infinita sequitur quod potentia ejus infinita sit" (*ibid.*).

[5]See his *De Veritate*, q. 2, a. 2 ad 5 (Marietti ed., p. 29); *ibid.*, q. 29, a. 3 resp. (Marietti ed., pp. 557-58); *Contra Gentiles* I, cap. 43 (Leonine man. ed., p. 41); *De Potentia* (Marietti ed., pp. 11-12); *Summa Theologiae*, I, q. 7, a. 1, resp. (Marietti-Leonine ed., p. 32); *ibid.*, III, 10, 3 ad 1 (Marietti-Leonine ed., pp. 87-88).

[6]On the attitude of Bonaventure and the rest towards divine infinity, see L. Sweeney, S.J., "Divine Infinity: 1150-1250," The Modern Schoolman, XXXV (1957), 38-39, nn. 1-3; and "Infinity in Plotinus," *Gregorianum*, XXXVIII (1957), 515 sq.

Although many of St. Thomas's contemporaries agree with him and among themselves in making infinity a perfection of God's very being, still individual differences appear *within* that general area of agreement. For instance, divine infinity for St. Thomas basically is a negation, whereas Henry of Ghent conceives it as a positive attribute of God (see L. Sweeney, S.J., "Some Mediaeval Opponents of Divine Infinity," *Mediaeval Studies*, XIX [1957], n. 1). Or, again, according to St. Thomas one can establish that infinity intrinsically belongs to power only by first establishing that an agent's being is infinite. St. Bonaventure, however, argues from an infinity of power to the presence of infinite being within the agent. See his *Commentaria in I Sent.*, d. 43, art. unicus, q. 2, argumenta a-c and resp. (Quaracchi Editio Minor, pp. 608 and 609).

[7]See L. Sweeney, S.J., "Divine Infinity: 1150-1250," pp. 39-46; on Hugh of St. Cher, see Sweeney, "Some Mediaeval Opponents of Divine Infinity," n. 33.

[8]On this group, which St. Thomas and St. Bonaventure refer to as *quidam* and which are still unidentified, see L. Sweeney, S.J., "Some Mediaeval Opponents of Divine Infinity," *passim*.

[9]For biographical information on Fishacre, as well as for a survey of pertinent literature, see William A. Hinnebusch, *The Early English Friars Preachers*, Fasciculus XIV of *Dissertationes Historicae* of *Institutum Historicum Fratrum Praedicatorum* (Romae: Ad S. Sabinae, 1951), pp. 364-69.

[10]*In I Sent.*, d. 2, cap. 1 [Prologus] (Ermatinger ed., ll. 1-7. Hereafter this section of Fishacre's commentary, which is edited below [pp. 213 sq.] will be referred to as "Ermatinger.")

[11]Supplementary texts are taken exclusively from Cod. Vaticanus Ottobonianus latinus 294, which was used first in the microfilm copy on deposit in the Knights of Columbus Vatican Film Library at Saint Louis University and later in a personal microfilm copy which Dom Anselmo M. Albareda, Prefect of the Vatican Library, graciously permitted the writer to purchase. Texts from the commentary are introduced by *In I* (or *II*, *III*, *IV*) *Sent.*, with indication of *distinctio* and also of *capitulum*, when the latter could be easily established. No attempt is made, of course, to number Fishacre's questions; to do

of infinity as a perfection of the divine being became almost a commonplace among Western theologians after 1250, still at the midpoint itself of the thirteenth century it was, actually, a new doctrine. If so, the important question of its origin arises. Who was its originator? Where and under what doctrinal influences was he working?

One way of discovering that source is to investigate authors prominent in theological and philosophical circles during the decades just previous to that date. One such is Richard Fishacre, who, as the first Dominican to graduate from the University of Oxford, incepted as master of theology in approximately 1236 and taught there until his death in 1248.[9]

As his fellow Dominican Thomas Aquinas was to do some ten years later at Paris, Richard, too, addressed himself to the problem of divine infinity while penning a commentary on Lombard's *Sentences*. "Is God infinite?" he asked shortly before 1245 when formulating his stand with regard to the beatific vision on the occasion of Lombard's second distinction of Book One. "And if so," he continued, "in how many ways can He be described as infinite? Moreover, how is His infinity to be reconciled with His absolute simplicity? How, finally, is a rational creature with only finite power capable of seeing that infinite object?" [10]

Richard's answer to those questions provides us with both a relatively rich discussion of divine infinity and the basic material for the present study.

How shall we proceed? We shall first give a general outline of Fishacre's discussion with its four questions and their subsequent *solutiones*, all of which is edited below (pp. 213 sq.). Then we shall return to analyze in greater detail a few cardinal points occurring within that discussion. Wherever possible or convenient, this analysis will be bolstered by supplementary texts found in other portions of Richard's commentary.[11] Finally, we shall endeavor to locate him with reference to the medieval notion of infinity. In his conception, is God infinitely perfect in His very being? If so, has he thereby anticipated the doctrine common after 1250?

The first question asks simply whether God is infinite. Yes, it is argued, and in three respects—in power, in wisdom, and in goodness.[12] Noteworthy in the affirmative arguments listed by Fishacre is the corroborative role of scriptural citation with respect to philosophical reason, indication enough that he is not among those who oppose a controlled speculative approach in commenting on a theological text.[13]

At first sight, the second question appears to be merely an extension of the previous one. The point at issue is in how many senses something may be called infinite and whether God is infinite in these various senses. The ways in which a thing may be infinite are five—that is, by intension, extension, duration, numerousness ("numerosity"), and division. Arguments of varying length are advanced to show that God is infinite in every way except by division.[14] And the terms in which some of the arguments are couched suggest that,

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this with consistent accuracy would require a far more detailed examination of the entire commentary than is possible here. A few texts are quoted from a work which will be referred to as *De Haeresibus*. This title does not appear in what seems to be the only known copy, the Cod. Ottob. lat. 294, ff. 287ra-294vb (that is, immediately after Fishacre's *Sentences* commentary), but is supplied as aptly indicating the nature and purpose of the work, which begins: "Legi Augustinum in libro de haeresibus haereticorum positiones narrare." (See F. Pelster, "Das Leben und die Schriften des Oxforder Dominikanerlehrers Richard Fishacre (†1248)," *Zeitschrift für katholische Theologie*, LIV (1930), 527, 531. The work is not explicitly attributed to Fishacre, but its location, style, and content strongly suggest him as author.

[12]Ermatinger, q. 1, ll. 7-30.

[13]The use of philosophical arguments in a commentary on a theological text was not as self-understood in Fishacre's time and locale as it was among his contemporaries in Paris and in all later Scholastic commentaries. For information on Fishacre's "progressiveness" on this point, see B. Smalley, "Robert Bacon and the Early Dominican School at Oxford," *Transactions of the Royal Historical Society*, S. 4, XXX (1948), 1-16. Discussions of Fishacre's theological method, with quotation of texts, may be found in M. Grabmann, *Die theologische Erkenntnis- und Einleitungslehre des hl. Thomas auf Grund seiner Schrift "In Boethium de Trinitate" im Zusammenhang der Scholastik des 13. und beginnenden 14. Jahrhunderts dargestellt* (Vol. 4 of "Thomistische Studien" [Freiburg in Schweiz: Paulusverlag, 1948]), pp. 205-15 and *passim*; Grabmann, *I Divieti Ecclesiastici* (Rome: Saler, 1941), pp. 79-80; M.-D. Chenu, *La théologie comme science au XIII^e siècle* (Vol. 33 of "Bibliothèque Thomiste" [3^e ed. rev. et augm.; Paris: J. Vrin, 1957]), pp. 45-49.

[14]Ermatinger, q. 2, ll. 31-88.

[15]*Ibid.*, ll. 61-86.

[16]See *infra*, n. 30.

[17]*Ibid.*, q. 3, ll. 89-195.

[18]*Ibid.*, ll. 196-260.

[19]See *infra*, pp. 206 sq.

[20]*Ibid.*, sol. ad 1, ll. 262-264.

[21]*Ibid.*, ad 2, ll. 265-283.

contrary to what at first appeared to be the case, the four accepted modes of infinity are not simply to be added to the three aspects of divine infinity considered in the first question. The purpose of this second question seems rather to be that of establishing whether the infinity of God's power, wisdom, and goodness can in principle be expressed in terms of intension, extension, and so on. Fishacre, to be sure, does not exhibit equal interest in all three infinite attributes or in all of the various ways of expressing their infinity. This fact emerges from the varying lengths of the affirmative arguments considered; the fourth argument, consisting of three separate *rationes* and concerning God's infinity by "numerosity," [15] shows by its length where Fishacre's chief interest seems to lie. Though not expressly stated, it would seem that God's wisdom is the attribute whose infinity is to be explained in terms of numerosity.[16]

The importance which Fishacre attaches to God's infinity by numerosity is evidenced in the third question, which considers the compatibility of numerosity and simplicity. In contrast to the two preceding ones, this question features a number of opposing arguments, all purporting to show that simplicity and numerosity are not compatible. A total of nine affirmative arguments, most of them fairly long, show on the other hand that an increase in numerosity need not destroy simplicity or, conversely, that an increase in simplicity is not detrimental to numerosity.[17] Immediately following is the fourth question, which inquires how a rational creature with only finite power can reach the infinite which is God.[18] This question will be briefly considered below.[19]

It is only after all four questions have been posed and the negative and affirmative arguments for each one considered, that the *solutiones* are offered. The first and second questions are handled together, the *solutio* to the first assuming the form of a brief concession that the arguments for God's infinite power, wisdom, and goodness are valid.[20] Almost as summary is the *solutio* to the second question. It is conceded that God is infinite in intension, extension, duration, and numerosity, but not by division. Fishacre does, however, indicate certain modifications for the arguments which had been advanced in support of the four modes of infinity now accepted.[21]

With the *solutio* to the third question, quite a different pattern

emerges. The five arguments which had been adduced to show the incompatibility of simplicity and numerosity are dismissed en masse as applying to the quantitatively infinite.[22] And it is to be noted that now *infinitum*, and not precisely *numerositas*, is that whose compatibility with simplicity is in question. This shift in perspective, justified at least terminologically by the language which Fishacre uses at the very beginning of his discussion,[23] opens the way to one of the most interesting sections of the text. Basic to the new approach is the realization that what is infinite is so either quantitatively or virtually, and that the latter is itself of two kinds, the first incompatible, the second eminently compatible, with simplicity.[24] As will be shown below, this second kind of virtual infinity is very important in Fishacre's doctrine of divine infinity. As for the compatibility of *numerositas* with simplicity, this is taken up again in a brief question and solution appended to the fourth main question.[25]

Analysis of Cardinal Points

In the analysis which follows, no attempt is made to describe the historical setting in which Fishacre's doctrine of divine infinity emerges. His relationships with earlier, contemporary, or later thinkers will subsequently be made the subject of separate studies. Here, rather, Fishacre's own thought on the subject, as revealed in the edited text and elsewhere in his commentary on the *Sentences*, is the immediate object of interest. As has been noted, his discussion

[22] *Ibid.*, ad 3, ll. 285-291.
[23] *Ibid.*, prol., ll. 4-5.
[24] *Ibid.*, sol. ad 3, ll. 292-334.
[25] *Ibid.*, ad 4, ll. 528-584.
[26] *Ibid.*, q. 1, ll. 10-16. See *In I Sent.*, dist. 3, cap. 21 (Cod. Ottob. lat. 294, f. 9va-b): "Item, magnae, quia infinitae, potentiae est de nihilo facere minimum aliquid, scilicet materiam. Quanto enim actum excedit illud de quo fit, tanta est potentia agentis. Sed infinita distantia est minimi acti, ut materiae, ad nihil. Ergo potentia agentis fuit infinita. Sed maioris est adhuc potentiae tantam universitatem quanta haec est, in qua species infinitae quarum quaelibet multo nobilior quam materia, ex materia vel magis ex nihilo fecisse; magnae ergo potentiae est dare existentiam materiae, maioris multo dare existentiam universitati creaturarum."
[27] Ermatinger, q. 1, ll. 20-23.
[28] *Ibid.*, ll. 24-30.
[29] The text in question is *In I Sent.*, dist. 3, cap. 6 (Cod. Ottob. lat. 294, f. 8rb): "Materia est vestigium infinitae potentiae, quia inter nihil et aliquid est distantia infinita, et materia est ex nihilo, et tanta est potentia facientis quantum distat id quod fit ab eo ex quo fit. Forma infinitae sapientiae est vestigium, quia in minima atomo sunt formae, scilicet figurae, infinitae, quae prius erant in mente artificis idealiter. Compositio infinitae bonitatis est vestigium, quia bonitatis est dare carenti aliquo et appetenti appetibile; ergo appetenti infinita, scilicet materiae

of divine infinity begins with a series of arguments showing that God is infinite in power, wisdom, and goodness. The present analysis of his doctrine will start with an examination of these arguments, will continue by singling out for special consideration his doctrine on infinity in divine power, and will conclude by investigating his conception of the beatific vision.

a) Power, Wisdom, Goodness

The argument for God's infinite power begins with the axiomatic statement that the power of a maker is as great as the distance between what is made and what it is made from. But, so the argument continues, since God has made prime matter from nothing, and this is a case in which between what is made and that from which it is made the distance is infinite, it follows that the power of the maker is infinite.[26] The argument for God's infinite wisdom begins with another axiomatic formula: The figures and dispositions of the artifact are evidence of the wisdom of the artificer. And since even in the smallest particle of matter (*atomus*) there are infinite figures, the wisdom of the Divine Artificer, from whom these figures come, must itself be infinite.[27] Finally, for the infinity of God's goodness, a third axiom is advanced: It belongs to goodness to clothe the naked and to provide the needy with what it lacks, and it belongs to infinite goodness to confer upon that which has infinite needs, the infinite things which it needs. Since prime matter desires and needs to be arrayed in infinite forms, which God does in fact bestow upon it, it follows that He is of infinite goodness.[28]

This alignment of divine power, wisdom, and goodness with matter, forms, and their actual presence in matter is even more clearly expressed in his commentary on the next distinction of Lombard's *Sentences*. Matter, he there explains, is a sign of God's infinite power because of its infinite distance from nothingness. The infinite number of forms, however, in even the smallest particle of matter points to divine wisdom, which previously contained those forms and figures as divine ideas. Finally, the actual composition of those forms with matter, together with the right order existing between them, indicates divine goodness, which introduced the forms into matter and there arranged and ordered them.[29]

In these arguments from both sections of his commentary, there are three important points to be noted. First of all, power, wisdom, and goodness are each called infinite in view of something outside of God Himself—power in view of the infinite distance between prime matter and nothingness, wisdom in view of the infinite number of the forms

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habenti naturalem inclinationem ad infinitas formas, dare illa infinita est bonitatis infinitae. Insuper, quia quaelibet illarum formarum est melior in ordinatione ad aliam quam in se absolute, ordinatio infinitarum formarum in atomo est vestigium infinitae bonitatis in artifice Deo." The fact that the infinity of divine wisdom emerges in this text as a numerical infinity undoubtedly explains why Fishacre is concerned with reconciling numerosity and simplicity.

Also see *In III Sent.*, dist. 14 (Cod. Ottob. lat. 294, f. 211va): "Item, in minima atomo sunt figurae infinitae, et perinde est vestigium infinitae potentiae, sapientiae et bonitatis in efficiente."

[30]One interested in learning more about Fishacre's views on the infinity of divine wisdom as involving infinite numerosity would want to study the interesting discussion in *In I Sent.*, d. 36 (Cod. Ottob. lat. 294, ff. 65vb-66va), which begins: "Sequitur de distinctione formarum in Deo. Et tangit hic quaestionem de ideis. Quaeritur ergo an formae in Deo numerum aliquem habeant et distinctionem vel non." The key term in his discussion is *replicatio*, with the help of which he at the same time explains the multiplicity of created forms, the multiplicity of divine ideas, and the compatibility of the latter with divine simplicity. As an indication of some of the highlights in his discussion, let us transcribe a few relevant sentences.

All created forms, he explains, result from the "replicatio" of a single form: ". . . omnes formae creatae fiunt, ut aestimo, per replicationem differentem unius formae, sicut omnes numeri fiunt per replicationem unitatis" (f. 66ra). It is by the greater or lesser *replicatio* of this single form that other created forms are prior or posterior, more composite or more simple (f. 66ra): "Sic ergo patet quod formae creatae distant secundum prius et posterius, compositius et simplicius, secundum replicationem unius formae maiorem vel minorem." But to the various degrees of *replicatio* in created forms must correspond a similar state of affairs in their ideas, and the single factor whose *replicatio* produces the ideas is nothing other than the action of divine understanding itself (f. 66ra-b): "Et ideo proportionaliter esse necesse est in ideis earum, scilicet causis, ut scilicet quaedam ideae sint quasi priores et quaedam quasi posteriores, quaedam quasi simpliciores, quaedam quasi compositiores, secundum replicationem numerosiorem vel minus numerosam alicuius unius. Hoc autem necessario est actio divina, scilicet intelligere, quia eius tantum numerosam esse posse videmus replicationem. Intelligit enim Deus se, et intelligit suum intelligere, et illud adhuc intelligere intelligit. Et sic unius est in Deo numerosa replicatio, et haec infinita. Et harum replicationum quaedam sunt quasi simpliciores et priores, quaedam quasi compositiores et posteriores. Simplicius enim et prius videtur unica eius replicatio quam duplex, ut intelligit se intelligere, quam quod intelligit se intelligere se intelligere. Et erit prima replicatio respondens mundo, quasi idea primae formae creatae, per cuius replicationem fiunt aliae, et sic de aliis." Further on and with all desirable explicitness, Fishacre identifies this infinity of ideas obtained through successive *replicationes* with that of divine wisdom (f. 66rb-va): "Sed si quid in Deo debet ab hoc numero idearum denominari, hoc non erit Deus sed scientia vel sapientia Dei. Unde a numero idearum infinito dicitur sapientia Dei infinita. Ps.: 'Sapientiae eius non est numerus.'"

A possible source for Fishacre's *replicatio* theory, as we shall establish in a subsequent study, and for his link-

themselves,[30] and goodness in view of their actual presence and arrangement within matter. When infinity is thus predicated of the divine attributes themselves, it is one of extrinsic denomination.

With reference to those extrinsic items, moreover, an order of priority and a hierarchy are discernible among the divine attributes. Just as the actual introduction of forms into matter requires that there are forms and, even more ultimately, that there is matter, so, too, goodness presupposes wisdom, which in turn presupposes power. This latter thus emerges as the primary aspect of divine infinity.

Finally, and most fundamental, this context indicates that Fishacre's notion of divine infinity rests upon his conceiving creation as a *factio ex nihilo*, since God's power is infinite precisely because He has spanned the infinite distance between nothingness and reality by producing prime matter.

b) Infinity of Divine Power

According to the axiom which is at the basis of the proof for infinity in divine power, an agent's power is as great as the distance between what is made and what it is made from.[31] This insight, together with the doctrine of creation as *factio ex nihilo* and the positing of an infinite distance between *nihil* and *aliquid*, provides an argument of which Fishacre seems fond. Let this be called, for convenience, the *distantia* argument. As one would expect, it is used most frequently in connection with discussions of creation. More specifically, it is used most often in connection with the question whether creatures possess creative power, something which Fishacre denies quite emphatically.[32] The reasoning behind his answers to this question

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ing the infinity of divine wisdom with the infinity of divine ideas is Robert Grosseteste. See the latter's commentary on III *Physics* (Oxford, Bodelian Library, Cod. Digby 220, f. 91rb-va), quoted by Richard C. Dales, "Robert Grosseteste's *Commentarius in Octo Libros Physicorum Aristotelis*," *Medievalia et Humanistica*, XI (1957), 22.

[31]See *supra*, p. 197 and n. 26.

Robert Grosseteste may have been Fishacre's source for this *distantia* argument. See Grosseteste's *De Operacionibus Solis* (Madrid, Bibliotheca Nacional, Cod. 3314, f. 92va), edited by S. Harrison Thomson, "Grosseteste's *Questio de Calore, De Cometis* and *De Operacionibus Solis*," *Medievalia et Humanistica*, XI (1957), 42.

[32]"Multi autem philosophorum [physicorum?] opinati sunt, maxime Avicenna, quod Deus creavit angelum, et deinde angelus alia. Sed haec sententia physicorum [?] reproba est secundum sanctos expositores, qui omnes confitentur omnia opera 6 dierum immediate a Deo facta" (*In II Sent.*, dist. 13 [Cod. Ottob. lat. 294, f. 122vb]).

is that no creature possesses the infinite power which is required to make something out of nothing, there being an infinite distance between nothing and something.[33]

There is in Fishacre another form of the *distantia* argument. Closely analogous to the previous one, this second form of the argument

[33]"Sed quod solus Deus creat, probo. Creare enim est de nihilo aliquid facere. Inter nihil autem et aliquid est infinita distantia. Sed quanta est distantia inter nihil et aliquid, idest inter quod fit et illud ex quo fit, tanta est virtus agentis. Ergo virtus agentis est virtus infinita. Sed omnis virtus creaturae est virtus finita. Ergo nulla creatura est tantae virtutis ut creare posset. . . . Item, inter nihil et aliquid est infinita distantia, et non est infinitum maius infinito. Igitur aequalis virtutis est ex nihilo facere vermiculum et ex nihilo facere angelum. Sed ex nihilo facere angelum quis potest nisi Deus? Ergo nec vermiculum. Quod si aliquid, ut angelus angelorum, posset facere vermiculum ex nihilo, eadem ratione et se ipsum. Nihil autem se ipsum de nihilo facit, testantibus omnibus philosophis. Alioquin idem esset potentia et actu respectu eiusdem" (*In II Sent.*, dist. 1 [Cod. Ottob. lat. 294, f. 89rb-va]).

"Quippe creare est de nullo aliquid facere. Sed inter nihil et aliquid est infinita distantia. Ergo non efficitur ex nihilo aliquid nisi virtute infinita, quia tanta est virtus agentis quantum quod fit exsuperat id ex quo fit. Sed nulla creatura est virtutis infinitae" (*In II Sent.*, d. 16 [Cod. Ottob. lat. 294, f. 130va]).

"Item, tanta est virtus agentis quanta est distantia inter illud quod fit et illud ex quo fit. Sed inter nihil et aliquid est infinita distantia. Ergo creare non potest nisi virtus infinita. Sed hoc esse non potest nisi in creatore, cum, secundum Aristotelem, illi potentissimi motores caelorum sint virtutis finitae. Alioquin revolverent caelum subito. Ergo solus Deus creat" (*In III Sent.*, dist. 14 [Cod. Ottob. lat. 294, f. 211ra]).

"Consequenter rationibus ostendendum quod cum mundus sit factus, ut iam probatum est, quod est factus a Deo. Si dicas quod non, sed ab angelo tantum, contra: prima propositio De causis, 'Omnis causa primaria plus influit super causatum quam causa secundaria.' Ergo, si Deus est causa angeli, et angelus mundi, est Deus causa primaria et magis causa mundi quam angelus. Ergo, Deus fecit mundum, quod est creare, contra Symonis verbum. Item, si angelus condidit mundum, aut creando aut faciendo. Non creando, probo, quia necessario tanta est virtus agentis quantum distat quod fit ab eo ex quo fit. Ergo, cum creare sit aliquid de nihilo facere, et inter nihil et aliquid est infinita distantia, non potuerit creare nisi virtus infinita. Sed omnis creaturae est virtus finita. Ergo nulla, sed solus Deus, potest creare. Ergo, angelus non creavit mundum" (*De Haeresibus* [Cod. Ottob. lat. 294, f. 287va-b]).

Still another context in which the *distantia* argument is used is shown in the following: "Contra Maximinum, scilicet quod non est filius patre impotentior, sic potest argui. . . . Item, Deus Pater per Filium fecit omnia, Johannes 1: 'Omnia per ipsum facta sunt et sine ipso factum est nihil.' Igitur et Filius creator est. Sed tanta est virtus vel potentia agentis quantum excedit quod factum est id ex quo est. Sed omnia facta sunt de nihilo, et ideo quod factum est excedit illud de quo fit in infinitum. Aliquid enim, quantumcumque modicum, distat a nihilo per infinitam distantiam. Ergo, potentia Filii est infinita. Ergo non est minor potentia Patris" (*In I Sent.*, dist. 20, cap. 3 [Cod. Ottob. lat. 294, f. 38va-b]).

[34]"Item, inter bonum et malum est distantia infinita, sicut inter aliquid et nihil, bonum enim est aliquid, et malum nihil est. Igitur virtus finita ad istam distantiam non potest. Ergo ipsa existens in malitia ex se in bonum non potest. Sed ipsa existens in malitia nihilominus ipsa est et naturam suam non amisit . . ." (*In II Sent.*, dist. 24 [Cod. Ottob. lat. 294, f. 148vb]).

works with an alleged infinite distance between evil and good,[34] or between the *status culpae* and the *status gratiae*. In the latter case, for example, it is argued that since there is an infinite distance between the state of guilt and the state of grace, only an infinite power can elevate from the former state to the latter.[35] Still another version of the *distantia* argument purports to show that an infinite power is also required to move a creature from the state of grace to the state of guilt, so that there must be an evil principle of infinite power—an argument which Fishacre refutes by making the fall from grace equivalent to a *derelictio* of the infinite power needed to elevate and preserve in a state of grace.[36]

But if we assume with Fishacre that spanning the infinite distance between nothing and something requires an infinity of power in an agent, one must still examine his attempts to explain the nature of that infinity. What metaphysical status, so to speak, must that power have? Richard's answer rests upon his interpretation of the roles

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[35]In connection with the Lombard's identification of charity with the Holy Spirit (*I Sent.*, dist. 17, cap. 10), Fishacre lists the following among the affirmative arguments: "Item, virtus finita non movet per infinitam distantiam, sed tantum virtus infinita. Sed inter statum culpae et gratiae est infinita distantia. Ergo virtus finita non potest mentem elevare a statu culpae usque in statum gratiae. Sed hoc facit caritas. Ergo caritas est virtus infinita; ergo est Deus" (Ottob. lat. 294, f. 31vb). Fishacre's long discussion of Lombard's position on this point is edited by A. Landgraf, "Anfänge einer Lehre vom Concursus simultaneus im XIII. Jahrhundert," *Recherches de théologie ancienne et médiévale*, 1 (1929), 202-28, 338-55.

[36]"⟨Septimum⟩ Item, quantum distat status culpae et status gratiae, tantumdem e contra status gratiae et culpae, scilicet per infinitam distantiam. Sicut ergo motor finitae potentiae non potest movere a statu culpae usque in statum gratiae, sic nec e contra, sed exigitur motor infinitae potentiae ad movendum a statu gratiae in statum culpae. Sed constat, omnis spiritus creatus est finitae potentiae. Ergo non sufficit sine deo malo infinitae potentiae ad descendendum a statu gratiae in statum culpae . . . Ad septimum dico quod virtute Dei, quae est virtus infinita, elevatur quis a statu culpae in statum gratiae et ibidem virtute eadem retinetur dum in statu gratiae permanet. Sed ille idem demissus sibi et derelictus, vel derelinquens illam virtutem infinitam, cadit per illam distantiam infinitam, immo derelictio qua derelinquit illam virtutem infinitam, est ipse casus. Sicut ergo ille ascensus vel elevatio fuit ex adiutorio virtutis infinitae, sic casus ex derelictione eius virtutis infinitae. Sic sol praesens est causa lucis et absens tenebrarum" (*De Haeresibus* [Cod. Ottob. lat. 294, f. 294ra-294rb]).

Here, again, Grosseteste is a possible source. See Robert Grosseteste, *De libero arbitrio*, cap. 21 (ed. L. Baur, *Die philosophischen Werke des Robert Grosseteste, Bischofs von Lincoln* [Vol. 9 of *Beiträge zur Geschichte der Philosophie des Mittelalters*"], Münster i. W.: Aschendorff, 1912), p. 239.

which matter and form each have with respect to motion. Matter in a given thing is a passive factor, one that debilitates and impedes, whereas form is the active factor. Hence, the more of matter a thing has, the more passive and less active it is; while the more of form it has, the more active it is.[37]

This line of reasoning, just as the basic *distantia* argument itself, is brought to bear upon the question of whether any creature has creative power; but it is applied differently in light of the varying roles matter plays with reference to activity. On the one hand, since form is posited as the source of action, matter is merely that factor in a creature which is responsible for its acting only *aliquo sui* and not *se toto*. Only God acts *se toto* and thus is, by implication, form entirely without matter. The fact that a creature acts only *aliquo*

[37]"Quia enim omnis passio radicatur in materia et actio in forma, quanto aliquid plus habet de materia et minus de forma, tanto minus impassibile et minus activum, et quanto plus habet de forma et minus de materia, tanto magis est activum et impassibilius" (*In II Sent.*, dist. 3 [Cod. Ottob. lat. 294, f. 97ra]).

[38]"Item, omnis actio attribuitur formae. Sed omnis creatura habet materiam et formam, dico composita. Ergo omnis creatura agit non se toto sed aliquo sui. Deus autem, quia se toto agit, potest in totum actum. Ergo, nulla creatura potest in totum actum. Si enim creatura possit in totum actum, cum non agat nisi forma, actum autem est materia et forma, esset actum maius agente. Igitur, cum creatura per suam formam possit educere de potentia in actum, non poterit ipsam potentiam, scilicet materiam, efficere. Si enim hoc posset, iam in totum actum posset" (*In II Sent.*, dist. 1 [Cod. Ottob. lat. 294, f. 89rb]).

See *De Haeresibus:* "Item, sola forma est activa, et ideo Deus totus est activus, quia totus forma. Sed angelus non est activus nisi parte sua, scilicet per formam suam, non per materiam. Ergo dispar Deo et impotentior ad agendum quam Deus necessario est angelus. Sed summum quod potest Deus videtur posse in totum compositum, scilicet materiam et formam creando. Ergo, non creavit angelus mundum" (Cod. Ottob. lat. 294, f. 287vb). If in this second text Fishacre speaks of the creation of material beings as the supreme effort of divine power, he speaks otherwise in the following, which is the immediate continuation of the text quoted *supra*, n. 26: "Sed quia Deus ipsa universitate est maior, supremae potentiae est dare existentiam alicui sibi aequali, hoc est gignere aequalem sibi ex se ipso nullo addito nec ipso diminuto. Sed Deus omnipotens; ergo non solum primum, sed [*ms:* nec] secundum et tertium fecisse credendum est. Alioquin non esset tantae potentiae qua maior cogitari non potest" (*In I Sent.*, d. 3, cap. 21 [Cod. Ottob. lat. 294, f. 9vb]).

[39]"Sed numquid, si Pater assumeret hominem, erit ille homo potens omnia? Constat quod non, nulla enim creatura potest creare, nec potest Deus hoc creaturae conferre forte. Unde cognoscere potest creatura omnia; hoc nihil impedit. Sed facere omnia, ut creare, non potest. Quia enim omnis creatura habet materiam, non potest in materiam creando eam. Quippe materiale inquantum tale minus potest, et forma per hoc quod est in materia fit quodammodo in potentia et impotentior. Et ideo illa sola quae est sine materia creare potest" (*In III Sent.*, dist. 13 [Cod. Ottob. lat. 294, f. 206vb]).

[40]See Ermatinger, sol. q. 3, ll. 285-334.

[41]*Ibid.*, ll. 292-297.

sui—that is, through its form—means that it can indeed educe from potency to act but cannot produce the potency itself; it cannot, that is, produce the *totum actum*, the whole effect. This is produced only by God, who alone acts *se toto* as form entirely without matter.[38]

Another aspect of matter's role with regard to action is brought out to show more explicitly that only a form without matter can create. A creature, since it has matter, cannot create matter, for a material being as such is less capable; and even a form when in matter is in a state of potency and is less powerful. Hence, only a form without matter can create.[39] Matter figures here as a debilitating or impeding factor, so that the greater the remove from matter, the more powerful a form will be. A being, then, which is all form can create because it acts *se toto* and because it acts without the debilitating or impeding influence of matter. Its infinity of power—presupposed by the fact of creation—must therefore reside in its very subsistency.

It is clear from the foregoing that in order for a being to act *se toto* it must be simple and a pure form, and that simplicity of this sort is achieved through separation from matter. But since separation of form from matter results also in greater efficacy for the form, it is equally clear that an increase in simplicity means an increase in efficacy or power. It is precisely this identification of power with simplicity that is at the basis of one of the most interesting passages in the text edited below.[40]

Setting out to show that the infinite and the simple are not incompatible and after first eliminating the quantitatively infinite, Richard distinguishes two types of the virtually infinite by comparison with two ways in which one can speak of an increase or decrease of *virtus* or power. On the one hand, power may be increased by way of addition. If so, the virtually infinite is that whose power has been strengthened an infinite number of times. Thus understood, infinity is incompatible with simplicity.[41]

On the other hand, power may be increased by its being separated or "elongated" from matter, the factor which impedes it and causes it to be more in potency and less in act. An example of such increase is in light, which is less powerful when embodied than when not embodied, not because in the latter state any addition is made to

light but rather because light is "elongated" from the factor which makes it less powerful. Or, to use another example, the rational faculty is more powerful than the sensitive, not because it is more composite but because it is less flesh-bound; and the more it withdraws itself from flesh, the more powerful it is with respect to its

[42]*Ibid.*, ll. 298-321.

[43]*Ibid.*, ll. 322-326.

[44]"Quia ergo Deus in se simplex est et carens compositione cum alio, ut sit pars compositi, patet quod est infinitus virtualiter, non propter additiones virtutis factas in infinitum, sed potius quia in infinitum elongatus est ab impedimentis et materia, cum sit substantia omnino separata" (*ibid.*, ll. 327-31).

Almost as an afterthought, Fishacre adds (*ibid.*, ll. 332-334) that God might also be called infinite in power with respect to His effects, which are the same as those which would be produced by some imagined power infinite in the additive sense previously rejected as incompatible with simplicity.

The interesting question of Richard's sources for his doctrine of *elongatio ab impedimentis* will be investigated in later articles.

[45]"Iam dixerunt hi quod Deum per essentiam esse in creaturis est suam essentiam esse eis praesentem et conservantem vel supportentem ea in esse. Et nescio quid amplius hic dici vult magister, nec ipse scit si verum dicit, quod illud sit. Quomodo ergo ego dicturus sum, cum nemo [. . .] hoc capiat? Dico tamen quod mihi videtur quod Deus non tantum adest creaturis, sed adest ut efficiens. Et hoc hi dixerunt. Adest insuper ut forma. Deus enim, ut dicit Augustinus, est forma, et forma omnium, et utique forma omnium summe perfectiva. Quippe forma materialis est natura quaedam in se, praeter naturam materiae, et est unibilis materiae. Sed certe non eo quod unitur materiae est perfectiva (sic enim ipsa fit magis in potentia et impotentior), sed potius per hoc quod est natura alia separata a materia. Ergo quanto forma est magis separata a materia, tanto est magis perfectiva. Quod et patet verum, quia spiritus vegetabilis est magis perfectiva forma quam forma corporalis, et sic rationalis est maxime inter has perfectiva. Igitur Deus, eo quod summe per naturam sit elongatus a materia et ab omni creatura, est ipse omnium forma summe perfectiva. Licet ergo nobis vis rationis hoc concludat, quis tamen capiat quomodo Deus, summe per naturam ab omnibus elongatus, sit summe perfectiva forma omnium? Igitur si aliquis modorum essendi in hic assignetur, erit sicut motivum in moto, propter rationem causae efficientis, et insuper sicut forma inest, non tamen materiae, quia non est forma materialis. Est ergo ubique ut forma, nusquam tamen in materia" (*In I Sent.*, dist. 37, cap. 7 [Cod. Ottob. lat. 294, f. 69va-b]).

Cf.: "Sed quaeres forte, et dices, Deum quidem esse causam efficientem et finalem novimus dicente ipso per Isaiam, 41, 'Ego Dominus, primus et novissimus ego sum'; et Apocalypsin, 1, 'Ego sum alpha et omega, principium et finis.' Sed causam formalem esse non videtur, quia forma est pars compositi sicut materia, non sicut efficiens et finis. Sed Deus non est forma materialis vel pars alicuius compositi. Quomodo ergo est causa formalis? ⟨Solutio⟩ Ut dictum est supra, forma inquantum forma, est formati perfectio. Igitur, quanto aliquid verius perficit, tanto verius est forma. Sed quanto est magis separatum a materia, ut non sit pars compositi, tanto verius perficit. Ergo quanto est magis separatum, tanto verius est forma. Assumptio patet exemplo et ratione. Exemplo, quia forma illa naturalis quae est maxime separabilis, scilicet anima, est quae nobilissime et perfectissime perficit. Ratione sic: forma fit in potentia, et minoris potentiae, per unionem eius cum materia. Ergo, quanto magis unita, tanto est ad perficiendum impotentior. Igitur, non perficit per hoc quod est unita, sed potius per hoc quod est separabilis a materia . . ." (*In I Sent.*, dist. 38, cap. 1 [Cod. Ottob. lat. 294, f. 70va-b]).

operation. This augmentation again is not because of any addition to power (which would mean an increase in composition) but rather because of an "elongation" from impediments. The conclusion to be drawn, therefore, is that an increase of power understood in terms of *elongatio ab impedimentis* does not involve greater composition but rather greater simplicity.[42]

When, then, is an agent's power *infinite* according to this latter sort of increase? Obviously, when he is absolutely and infinitely removed from impediments and from matter (*propter infinitam elongationem ab impedimentis et a materia*). And such removal and such infinity are eminently consonant with simplicity.[43]

Such an agent is God. A substance which is completely separated from all else, a being who is simple in Himself and who enters into composition with nothing outside, He is virtually infinite in His infinite separation from impediments and from matter.

> God is simple in Himself and is not part of any composite in His freedom from composition with all else. Accordingly, He is virtually infinite [*est infinitus virtualiter*] not because His power has been extrinsically strengthened an infinite number of times but rather because He is infinitely removed [*in infinitum elongatus est*] from impediments and from matter as a completely separate substance.[44]

Incidentally, if God's infinite "elongation" from matter accounts for the infinity of His power as required by the fact of creation, it also provides a means for Fishacre to interpret Augustine's statement that "Deus est forma omnium." Even a material form, so he argues, has a nature other than the nature of matter, and it is perfective not because united with matter (from this point of view it is more in potency and less powerful) but precisely because it is a nature distinct from matter. Hence, the more separate a form is from matter, the more highly perfective it is; and it follows that God, who is in a supreme degree "elongated" from matter and from every creature, is Himself the supremely perfective form of all things.[45]

As noted at the beginning of this study, Fishacre's discussion of divine infinity occurs within his investigation of the beatific vision —*hic de Dei visione in patria quaeratur.*[46] Why the latter topic should initiate an inquiry into infinity is clear from his fourth question in that investigation: "How is a rational creature with only finite power capable of seeing that infinite object?" [47]

In that fourth question Richard first suggests considerations as to why such a vision is impossible,[48] followed by others which underwrite its possibility. These latter are built up within a framework of the five general "modes" of infinity previously studied.[49] The fact that a soul can know created items which are infinite in extension, in duration, in division, in number, and in intensity reveals it to be capable of knowing God in His infinity.[50]

In his *Solutio Quartae Quaestionis* he attends at some length to both sets of considerations. For instance, to those who object that finite substances with finite powers and activity can rise only to a finite object, Richard points out that although they truly grasp God's infinite reality in the beatific vision, still they do so only *finitely*—that is, not nearly so clearly and perfectly as does God Himself.[51] On the other hand, to those who might make that grasp too easy and "natural" or too perfect by overstressing the human intellect's ability to know infinite extension, duration, and the like, he explains that such infinity is itself a privation. In such cases one knows infinity only as the lack of some positive perfection, which is itself finite and which alone is directly known.[52]

According to these *solutiones*, then, Richard's attitude is that the created intellect of a *beatus* does see the infinite divine reality, although not as perfectly as God Himself does and only with God's intervention

[46]Ermatinger, prol., l. 2.

[47]*Ibid.*, ll. 5-6.

[48]*Ibid.*, q. 4, ll. 196-215.

[49]*Ibid.*, q. 2, ll. 32-88, and *ibid.*, sol., ll. 265-283.

[50]*Ibid.*, q. 4, ad contrarium, ll. 216-260.

[51]*Ibid.*, sol. q. 4, ll. 410-419.

[52]*Ibid.*, ll. 443-450; *ibid.*, ll. 454-465.

[53]Fishacre also returns (*ibid.*, ll. 529-530; *ibid.*, ll. 540-584) to consider how numerical multiplicity is reconcilable with divine simplicity. This consideration has been sufficiently touched upon previously (see *supra*, pp. 195 sq., and n. 30).

[54]*Ibid.*, ll. 528-539.

[55]*Ibid.*, q. 4, ll. 199-204. This first *videtur quod non* will later be seen to reflect the views of those condemned at Paris in 1241 for holding that no created intellect can behold the divine essence itself in the beatific vision.

[56]See *supra*, pp. 199 sq.

and help. To this last point he briefly turns in a final question.[53] Where, precisely, is located the capacity of a created and finite intellect to attain God in His absolute infinity? In the soul itself, which has been created with an innate power for such an attainment (*ipsa est creata possibilis ad huius infiniti apprehensionem*), and, above all, in the infinite power of God Himself, who elevates that soul and actuates its power (*educitur de potentia in actum hunc adiutorio eiusdem virtutis infinitae*). As an indication of the ease with which He can accomplish that actuation, consider what He accomplishes with fire. It has no innate capability to act upon a spiritual substance, and yet God can elevate it above its own natural condition by using it to punish sinners in hell. How much more readily can He not raise the human soul to an act of vision to which its very nature, so to speak, ordains it (*quanto magis educet animam in actum ad quem est nata*).[54]

Fishacre's theory on the beatific vision thus terminates in an appeal to the infinity of God's power. What ultimately enables a finite and created intellect to possess through vision the *divinum infinitum* is nothing else than God's own infinite power. Such an appeal suggests that the problem of the beatific vision has not only occasioned his investigating infinity but may also have dictated the thought development and emphasis within the investigation itself. In the beatific vision one basic factor which must be accounted for is the infinite distance between the finite intellect of a creature and the infinite perfections of God.[55] Within his investigation the arguments he uses to establish the infinity of God's power, which is given precedence over both wisdom and goodness, are those based on *distantia*—the infinite distance between good and evil, between the state of grace and that of guilt and, especially, between something and nothingness.[56] In view of that parallelism, may we not conclude that he has apparently fashioned his doctrine on power with an eye to the beatific vision? The same divine and infinite power which has in creation bridged the infinite gap between nothingness and something is surely capable of escorting a human soul across the infinite distance separating it from the apprehension of God.

Is any additional light thrown on this conclusion by the fact that at Paris in 1241 a set of ten propositions was officially condemned,

of which the first is that neither men nor angels will ever behold the divine essence?[57] Has Fishacre worked out his theory of divine infinity to counteract that heresy? Did this condemnation center his attention on the need of reconciling infinity with direct vision?

Certainly, Richard was aware of the Parisian condemnation, since

[57]See *Chartularium Universitatis Parisiensis*, ed. H. Denifle, O.P., and E. Chatelain (Paris: Delalain, 1889), I, 170-72: "Decem errores contra theologicam veritatem reperti in quibusdam scriptis (frat. Stephani) et proscripti Parisiis a Guillelmo Parisiensi episcopo et Odone cancellario de consilio omnium magistrorum theologicae facultatis. 1241, Januarii 13, Parisiis." The erroneous proposition here in question is this: "Primus [error], quod divina essentia in se nec ab homine nec ab angelo videbitur. Hunc errorem reprobamus et assertores et defensores auctoritate Wilhermi episcopi excommunicamus. Firmiter autem credimus et asserimus, quod Deus in sua essentia vel substantia videbitur ab angelis et omnibus sanctis et videtur ab animabus glorificatis" (*ibid.*, p. 170). The ten propositions, without the opposing *veritates*, may be found also in St. Bonaventure, *In II Librum Sententiarum*, dist. 23, art. 2, qu. 3 ad 7 (*Opera Omnia* [Quaracchi: Ex Typographia Collegii S. Bonaventurae, 1885], II, 547). Both the *Chartularium* list and St. Bonaventure's version may be consulted in A. Masnovo, *Da Guglielmo d'Auvergne a S. Tommaso d'Aquino* (seconda edizione riveduta; Milano: Societa Editrice "Vita e Pensiero," 1946), II, 71-72, n. 1.

For a survey of literature on the controversy of whether the condemnation may have been repeated in some form in 1244, see L. Sweeney, S.J., "Some Mediaeval Opponents to Divine Infinity," n. 21. For an interpretation of the doctrinal ancestry of the ten propositions, as well as their influence on the doctrine of divine infinity, see *ibid.*, pp. 237 sq.

[58]The proposition in question, with the opposing truth, is this: "Quintus [error], quod malus angelus in principio sue creationis fuit malus, et nunquam fuit nisi malus. Hunc errorem reprobamus, firmiter enim credimus, quod bonus creatus sit et post peccando factus sit malus" (*Chartularium Universitatis Parisiensis*, I, 171). Fishacre's reference occurs in *In II Sent.*, dist. 3: "Novi multos modernorum magistrorum morulam cum Magistro hic ponere, intantum etiam ut quidam sententiam excommunicationis intulerint in illos suae potestati ordinarie subditos qui dixerint in eodem instanti creationis angelos peccasse et cecidisse. Sit igitur, si placet, pro ratione voluntas eorum, et timeant qui voluerint excommunicationem, si non afferunt aliam rationem" (Cod. Ottob. lat. 294, f. 99rb).

Is it entirely accidental that a list of the ten propositions condemned at Paris should precede one of the copies of Fishacre's commentary on the *Sentences*, or would this also tend to place him in doctrinal relation with the condemnation? Such a list does occur in Oxford, Oriel College, Cod. B 43, f. 1r-v; Fishacre's commentary begins on f. 4r. According to Pelster (*Zeitschrift für katholische Theologie*, LIV [1930], 524), the commentary is in late thirteenth-century English script.

[59]". . . circa hanc quaestionem quidam erraverunt, dicentes, Deum per essentiam a nullo unquam intellectu creato videri posse, attendentes distantiam quae est inter intellectum creatum et divinam essentiam. Sed haec positio sustineri non potest, cum sit haeretica" (*De Ver.*, q. 8, a. 1 [Marietti], I, 137). Both the *positio* and its mention as *haeretica* suggest the condemnation of 1241. Less definite in this regard and occurring in a broader context is the reference in *In IV Sent.*, dist. 49, qu. 2, art. 1c (*Opera Omnia*, XI [Parisiis: Vives, 1874], 481): "Quidam enim philosophi posuerunt quod intellectus noster possibilis nunquam potest ad hoc pervenire ut intelligat substantias separatas . . . Et similiter quidam theologi posuerunt, quod intellectus humanus nunquam potest ad hoc pervenire quod

he expressly refers to its fifth proposition—namely, that some angels were evil from the first instant of their creation.[58] Moreover, although no text could be anywhere located in which he explicitly mentions the proposition concerning beatific vision, he most likely was also acquainted with that first proposition, since there is evidence from another source that at least one of the *videtur quod non* arguments he lists in *Quaestio Quarta* may actually reflect the views of the very persons affected by the censure. In what is undoubtedly a reference to the proposition here in question, St. Thomas Aquinas points out that the *distantia* between the created intellect and the divine essence led certain persons to advance the heretical position that God is never seen in his essence by any created intellect.[59] Returning to Richard, one finds that the first *videtur quod non* argument is based precisely upon the *summa distantia* between Creator and creature. Why cannot a finite intellect directly see an infinite God? Because, so the argument goes, the distance between Creator and creature is greatest of all (*quia summa distantia est inter creatorem et creaturam*).[60] It is true, of course, that a *distantia* argument of this sort may have already become part of the common stock-in-trade of the theological disputant and writer. Nevertheless, the function which St. Thomas ascribes to it in the heretical position, together with the fact that Richard, who elsewhere shows himself acquainted with another section of the condemnation, uses it just a few years after the list of proscribed doctrines had appeared, strongly suggests that he was also aware of its initial proposition.

But can we infer an influence upon Richard's own thinking? Did he intend his doctrine of divine infinity as a refutation of the condemned position? A full answer to this latter question would require more extensive study than is possible here, yet one is tempted to reply affirmatively. For if the position was indeed based, as Aquinas indicates, on the *distantia* between the created intellect and the divine essence, then Fishacre's use of various forms of the *distantia* argument to establish an infinity of power suggests that he is searching

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Deum per essentiam videat. Et utrosque ad hoc movet distantia inter intellectum nostrum et essentiam divinam."

[60]Ermatinger, q. 4, ll. 199-204. See above, n. 55.

for a theory of divine infinity which will help nullify just such a position. Divine power is shown to be infinite in view of the infinite distance between nothingness and the creatures God has produced. Among the creatures thus produced are some with a capacity for apprehending the divine infinite, a capacity which is actualized only with the assistance of the divine power itself. Presumably, then, a power which produces such a creature from nothing will also be able to provide the assistance required to lift this creature across whatever distance must be traversed to reach a status in which it can apprehend the divine infinite.[61] Perhaps an investigation of Fishacre's views on the nature and function of divine assistance in the finite intellect's attainment of that divine infinite would more fully reveal his intention. In such an investigation, attention would have to be given to Fishacre's views on the relation of gratuitous gifts to natural capacity, a subject which, interestingly enough, would bring one again into contact with the Paris condemnation of 1241.[62] Indeed, the question of gratuitous gifts and natural capacity, as well as that of the beatific vision, might be approached in a way that would put the burden, so to speak, on divine power, for both questions might be subsumed under the simple complex inquiry of whether divine power is great enough to elevate and perfect a finite intellective power to a point sufficiently beyond its natural capacity for it to apprehend the divine infinitude. Although only a further textual study can definitively determine whether the English Dominican actually had this latter sort of question in mind, still the infinity of power which he actually credited God with having seems made to order for that precise problem.

[61]If Fishacre actually directs his position against the first condemned proposition, then at least two reactions to the 1241 condemnation would have occurred. The first is, at least according to a somewhat likely interpretation, that of a still unidentified group whom Thomas and Bonaventure designate as "quidam" and who sacrifice infinity for direct vision. The *beati* see the divine essence, these theologians grant, but this latter is finite. (See L. Sweeney, S.J., "Some Mediaeval Opponents of Divine Infinity," *passim*).

Fishacre's is the second reaction. The *beati* directly see the divine essence, even though it is genuinely infinite, through the elevation and actuation which God's infinite power effects within their intellects.

[62]"Nonus [error], quod qui habet meliora naturalia, de necessitate plus habebit de gratia et gloria. Hunc errorem reprobamus, firmiter enim credimus, quod Deus secundum quod preelegit et preordinavit, dabit unicuique gratiam et gloriam" (*Chartularium Universitatis Parisiensis*, I, 171).

[63]Ermatinger, sol. q. 3, ll. 322-31.

Briefly, how can one best characterize the conception of divine infinity which emerges from Fishacre's commentary on the *Sentences*? Perhaps by the single phrase, "infinite distance." Because in creation and in justification God conquers the infinite distance between nothingness and something, and between guilt and grace, His power is known to be infinite. That infinity is, again, ontologically grounded in infinite distance—that of His total elongation from the limiting and enervating confinement of matter. Finally, what occasioned and apparently finalizes his investigation is the infinite distance stretching between a finite intellect and its object and terminus in the beatific vision.

Let us next turn to the question which has itself occasioned our investigation of Fishacre. Is infinity for Richard a property of the divine being itself? Has the Oxford theologian thereby anticipated Thomas, Bonaventure, and other theologians prominent after 1250?

At first sight the answer might seem to be negative in view of the fact that he seems nowhere to ask *utrum divina essentia sit infinita* or any such question. Such an absence, though, is easily explained by his preoccupation with the problem of beatific vision, which an infinity of divine power directly answers. Moreover, even within his discussion of infinite power he indicates with sufficient clarity and some explicitness his position on divine being. When, he asks, is an agent's power truly infinite? When he is infinitely removed from impediments and from matter. God is, he continues, such an agent. Because He has no internal parts and is not Himself a part of any other existent, *He* is virtually infinite inasmuch as *He* is infinitely removed from hindrances and matter and is a completely separate substance (*patet quod est infinitus virtualiter . . . quia in infinitum elongatus est ab impedimentis et materia, cum sit substantia omnino separata*).[63] That is to say, God Himself is infinite as a substance completely free from matter and its limiting determination, and, consequently, His power also is infinite. Is not Fishacre here affirming that the metaphysical foundation for infinity in power necessarily is infinity in being?

If we may legitimately answer yes, then Richard is not only the first English Dominican to graduate from Oxford and to write a commentary on the *Sentences*,[64] but he has the added distinction of being the first Western theologian so far discovered for whom infinity is a perfection of the divine reality itself.[65]

[64]W. A. Hinnebusch, *The Early English Friars Preachers*, p. 366, note 54.

[65]Has Richard influenced other theologians? Most likely, since the wide circulation of his commentary, attested by relatively numerous MSS still extant, gives evidence of the value which his contemporaries attributed to it. It was used by the Franciscans Richard Rufus of Cornwall and St. Bonaventure, by the Dominicans Simon of Hinton and Robert Kilwardby, as well as by Albert the Great and Peter of Tarentaise. Thomas Aquinas is reported to have esteemed the commentary so highly that he desired a copy, according to the following notation in the Toulouse MS of Fishacre's treatise: "Item fr. Ricardus Fisacra, natione Anglicus, tempore S. Thomae et eo antiquior, super sententias profundissime scripsit, cuius scripta S. Thomas desiderabat habere." Thomas's adversary, Gerard of Abbeyville, actually had a copy, which is now MS lat. 15754 of the Paris Bibliothèque Nationale. For this and other pertinent information, see W. A. Hinnebusch, *ibid.*, p. 364-369.

Moreover, intrinsic evidence of that influence appears in the use which others make of certain of his arguments. For instance, at times Thomas Aquinas invokes the *distantia* argument as a proof that God's power is infinite. See *De Potentia*, q. 3, a. 4, resp. (Marietti ed., pp. 46-47). Others locate the infinity of God's power in His infinite "elongation" from matter. See St. Bonaventure, *In I Sent.*, d. 17, pars 2, art. unicus, q. 2 ad 3 (Quaracchi Editio Minor, p. 253); Hannibaldus de Hannibaldis, *In I Sent.*, d. 2, q. 1, a. 1, arg. 2 and ad 2 (printed in Thomas Aquinas, *Opera Omnia*, XXX [Paris: Vives, 1878], 22-23). Also see Romanus de Roma, *In II Sent.*: "Secundum Augustinum enim in libro Confessionum, Deus duo creavit, unum prope se, scilicet angelum, aliud prope nihil, scilicet materiam. Sicut ergo materia elongata est ab omni actualitate, ita angelus, qui est Deo propinquus, elongatus est à materialitate" (Cod. Vaticanus Palatinus lat. 331, f. 23ra).

⟨COMMENTARIUM IN LIBRUM I SENTENTIARUM⟩

Edited by Charles J. Ermatinger

Introduction

Sigla	Manuscripts [1]
A	Vatican City, Bibliotheca Apostolica Vaticana, Cod. Ottobonianus latinus 294, ff. 5^{vb}-6^{vb}. XIIIth century.[2]
B	Oxford, Balliol College, Cod. 57, ff. 10^{rb}-12^{ra}. Late XIIIth century.[3]
C	Oxford, Oriel College, Cod. B 43, pp. 22^{b}-28^{a}. Late XIIIth century.[4]
D	Paris, Bibliothèque Nationale, Cod. lat. 15754, ff. 7^{ra}-8^{va}. XIIIth century.
E	Paris, Bibliothèque Nationale, Cod. lat. 16389, ff. 10^{ra}-12^{rb} XIIIth century.
F	Oxford, New College, Cod. 112, ff. 24^{va}-28^{vb}. XIIIth century.
G	London, British Museum, Royal MS 10 B VII, ff. 11^{ra}-13^{ra}. XIIIth century.

Prepared originally on the basis of *A* alone, the text presented below does not claim to be critical but remains largely that of *A*, corrected and altered here and there with the help of the additional manuscripts listed above.[5] The divisions in the text and the terms used to designate them were suggested by the copious marginal notations in *A*, and by the terms with which Fishacre himself introduces various parts of his discussion or refers back to them. The orthography is standardized, no attempt being made to reproduce the peculiarities of medieval Latin in this regard.

Since no comparative study of the manuscripts of Fishacre's commentary seems yet to have been published, the *apparatus variantium* accompanying the printed text has been designed to give a fairly detailed picture of the state of the text in all seven manuscripts used. But no attempt is made at this point to discuss the relationships

among the seven manuscripts. The reader who examines the *apparatus* may note, to be sure, that *AE* (possibly *AEG*) and *B* seem to represent two quite distinct traditions, that *C* seems to have come from a rather poor source but to have been corrected extensively from a fairly good source, that *F* seems to be rather faulty throughout, and that *C* and *D* seem in places to have been corrected from each other or from each others' families. A systematic attempt to establish the relationships, however, would have to be based on many more samplings of the lengthy commentary text and would have to take account of some or all of the additional manuscript copies. As it stands, the *apparatus* may serve as a point of departure for a comparative study by someone having access to one or more of the additional manuscripts.

The structure of the *apparatus* is on the whole quite conventional and therefore requires no explanation. All that need be noted here is that within the conventionally constructed *apparatus* a system of asterisks and parentheses has been used with the *sigla* and the variants to help show the state of the text in the various manuscripts. This system can be explained most easily by means of a few sample expressions and their interpretations. With "x" and "y" representing readings (other than the *lemmata*) registered in the *apparatus*, the following sample expressions will show how the state of the manuscript texts is indicated.

1. x A — The reading "x" represents the original and final state of *A*.

[1]For descriptions of these and other manuscripts of Fishacre's commentary on the *Sentences*, see F. Pelster, "Das Leben und die Schriften des Oxforder Dominikanerlehrers Richard Fishacre (†1248)," *Zeitschrift für katholische Theologie*, LIV (1930), 518-53, esp. 521-28. Additional manuscripts are listed by F. Stegmüller, *Repertorium Commentariorum in Sententias Petri Lombardi* (2 vols.; Würzburg: F. Schöningh, 1947), I, 348 (No. 718).

[2]Manuscript *A* was consulted in the microfilm copy deposited in the Knights of Columbus Vatican Film Library at Saint Louis University.

[3]Manuscript *B* was obtained on loan in microfilm copy from Providence College, Providence, Rhode Island.

[4]Microfilm copies of relevant parts of manuscripts *C* to *G* were graciously loaned to the present editor by Rev. William A. Hinnebusch, O.P., of Washington, D.C.

[5]A portion of the text, corresponding to lines 388-446 in the present edition, was published by F. Pelster, "Leben und Schriften des Fishacre," pp. 545-46. Pelster's text is based exclusively on Cod. Ottobonianus latinus 294. Passages from the same portion of text appear in D. E. Sharp, "The Philosophy of Richard Fishacre," *New Scholasticism*, VII (1933), 281-97.

2. x A*	The reading "x" represents the original state of *A*, but *A* has been altered, by linear or interlinear emendation, to agree in its final state with the edited text.
3 x A**	As in (2) above, except that the emendation is marginal.
4. y (x A*) A	The reading "x" represents the original state of *A*, but *A* has been altered, by linear or interlinear emendation, to the reading "y," which represents the final state of *A*.
5. x AB*	As in (1) above, but with the reading "x" shared by *B* and with *B* altered, by linear or interlinear emendation, to agree in its final state with the edited text.
6. y (x A*) AB	As in (4) above, but with the reading "y" shared by *B* in the latter's original and final state.
7. y (x A*) AB**	As in (4) above, but with the reading "y" shared by *B* in the latter's original state and with *B* altered by marginal emendation to agree in its final state with the edited text.
8. x A* (a:y)	The reading "x", corresponding to a passage of two or more words in the edited text, represents the original state of *A*; but *A* has been emended (cf. 2 above) to agree in its final state with all parts of the passage in the edited text except "a", for which the emendation shows the reading "y" instead.

In the *apparatus* itself, the nature of the emendation can, of course, always be deduced at least roughly from the nature of the variant recorded. There are entries in the *apparatus* which represent combinations of and variations on the above examples; they can all be interpreted by application of the principles illustrated in the examples. The only additional symbols in the *apparatus* that require interpretation here are the following:

(. . .) One word illegible to the present editor
(. . . . .) Two or more illegible words

Explicit references within the text are identified, by means of line numbers, in footnotes separate from the *apparatus variantium*. Enclosure within quotation marks of a citation in the text does not necessarily mean that this citation is given in the exact words of the edition named in the footnote.

⟨Dist. 2, Cap. 1⟩

"Purgatissimis mentibus cernitur."

Hic de Dei visione in patria quaeratur. Gratia cuius primo quaeritur an Deus sit infinitus; secundo, quot modis ipse possit dici infinitus; tertio, quomodo se compatiantur infinitas vel numerositas et simplicitas summa; quarto, quomodo creatura rationalis, cum sit virtutis finitae, possit ad illud infinitum.

⟨Quaestio Prima⟩

Ad primum. Quod sit infinitus patet, tum in potentia, tum in sapientia, tum in bonitate.

⟨1⟩ In potentia, quod patet sic. Quantum distant quod fit et ex quo fit, tanta est potentia facientis. Sed cum fecerit materiam primam de nihilo, inter factum et id ex quo fit est distantia infinita, sicut inter aliquid et nihil, quae distant sicut affirmatio et negatio. Ergo

1 Purgatissimis: *praem.* Dubitatur autem de eo quod dictum est supra, quod B Super hoc quod dictum est in hoc capitulo AE 2 Hic: *add.* ergo AE | visione Dei F Dei divisione D* 3 secundo: cum Deo (?) D** *rep.* C* | dici possit E 4 vel: et D 5-6 finitae virtutis F 6 finitae: (. . .) E** | illud: illum C* aliud F** 10 quod *ante* In F | et *om.* C* 11 potentia est D | materiam: naturam F 12 id: illud ADE idem F | distantia est B* 14 Unde *om.* B | Et *om.* BF 15 est: *add.* numerus vel B 16 coaequari F 18 multiplicata quantumcumque E 20 In: *praem.* Item F 22 haec: hoc C* | est: et D* 24 In: *praem.* Quod sit infinitus F | quod *om.* F | sic patet BCD | Bonitatis: *add.* autem B 25 id *om.* F 28 est Deus bonitatis B | vestit F | 2: 1 B 30 praedixi F | et *om.* F | misericordia: *add.* infinita F 32 secundum: tertium E* | videamus primo F | quid: aliquid AEF 33 an: a D* | primo: *add.* sic CF | patet: *add.* sic D 34 intensione: intentione D* | item (1): *add.* 2. B | item (2): *add.* 3. B 35 item (1): *add.* 4. B | item (2): *add.* 5. B 36 intentione D* 37 bonitas vel potentia E | aliquantum G 38 duplicetur F | triplicetur F 39 Ergo: Quia (?) B** 39-40 in infinitum: infinite F 42 imaginatione E* | dupliciter, scilicet: (. . . . .) C** | occupat B 43 spatii: epatii D* 43-44 et-spatii *om.* DF 43-47 et-spatii (1) *om.* C** 44 spatii. Et *om.* B* | cum: quod E* 45 infinitae est D 45-46 sic-spatium *om.* E 45 vel(1): et B 49 Deus esse D 50 partibus(1): *add.* simul B | totus *om.* D** 50-51 partibus corporis sui: s. p. c. E s. c. p. A 51 Et

1 P. Lombardus, *Quatuor Libri Sententiarum*, Lib. I, dist. 2, cap. 1 (Bonaventura, *Opera Omnia* [Quaracchi: Ex Typographia Collegii S. Bonaventurae, 1882], I, 46). Cf. Augustinus, *De Trinitate*, I, c. 2, n. 4 (*PL* xlii, 822).
14 Psalm 144, 3.
23 Psalm 146, 5.
28 Ecclesiasticus 2, 23.

potentia facientis est infinita. Unde Ps.: "Et magnitudinis eius non est finis."

Item, potentia cuiuscumque creaturae non potest aequari potentiae creatoris simpla; item, nec duplicata; item, nec triplicata, et sic in infinitum: quia haec quantumcumque multiplicata, potest esse potentia creaturae. Ergo potentia creatoris est infinita.

⟨2⟩ In sapientia, quod patet sic. Figurae et dispositiones artificiati indicant sapientiam artificis, Sed in minima atomo sunt figurae infinitae. Ergo et sapientia artificis divini, a qua haec sunt, est infinita Unde Ps.: "Sapientiae eius non est numerus."

⟨3⟩ In bonitate, quod patet sic. Bonitatis est nudum indigentem vestire et egenti id quo indiget exhibere; et infinitae bonitatis egenti infinitis infinita quibus indiget conferre. Sed materia prima nuda appetit et indiget infinitis vestiri formis, ut figuris in atomo. Ergo infinitae bonitatis est Deus, qui eam infinitis vestivit. Eccl. 2: "Secundum magnitudinem illius, sic et misericordia eius cum ipso est." Sed magnitudo, ut praediximus, est infinita; ergo et misericordia.

⟨Quaestio Secunda⟩

Circa secundum primo videamus quot modis dicatur quid infinitum, deinde an singulis modis sit Deus infinitus. De primo patet quod est imaginabile infinitum intensione; item, extensione; item, durationе; item, numerositate; item, divisione.

⟨1⟩ Quod autem intensione sit Deus infinitus patet ex praedictis, quia cum potentia vel bonitas creaturae est aliquantulum intensa, si dupletur illa intensio et tripletur et sic in infinitum, non pertingetur ad intensam eius potentiam vel bonitatem. Ergo ipsa est in infinitum intensa.

⟨2⟩ Quod extensione uno modo videtur similiter; quippe infinitum extensione est imaginabile dupliciter, scilicet quod occupet infinitum spatium ita quod pars occupantis sit in parte spatii, et maior pars in maiore parte spatii. Et constat: cum Deus partem non habeat, qui est infinitae simplicitatis, sic extensus vel diffusus non est. Vel quod possit occupare infinitum spatium ita quod totus in singulis partibus spatii et non maior in toto quam in parte spatii minima. Et constat quod si esset universitas creaturae occupans infinitum spatium, aut essent mundi infiniti, in omnibus posset esse Deus ita quod in singulis partibus totus, sicut anima in singulis partibus corporis sui tota, sed corporis finiti. Et si hoc potest dici extensio,

sic potest dici infinitus extensione vel diffusione, secundum illud Job 11: "Excelsior caelo est, et quid facies? Profundior inferno, et unde cognosces? Longior terra mensura eius et latior mari."

⟨3⟩ Quod duratione vel magis proprie existentia, patet, quia nec fuit quando non fuit Deus, nec erit quando non erit. Alioquin fuit quando fuit haec vera: non est Deus; aut erit quando erit vera.

Sed contra, "Dixit insipiens in corde suo: Non est Deus."

Ad hoc etiam sunt rationes quas in sequentibus ponemus, ostendentes quoniam Deus est.

⟨4. Prima ratio⟩ Quod numerositate videtur, quia habet notitiam infinitorum numerorum. Augustinus, *De Civitate Dei*, libro 12: "Quod dicunt nec Dei scientiam quae infinita sunt posse comprehendere, restat eis ut dicere audeant atque huic se voragini profundae impietatis immergant, quod non omnes numeros Deus noverit. Eos quippe infinitos esse certissimum est." Ergo scientia eius, quae non est nisi ipse, est infinita numerositate.

om. D** | si: sicut BC*G | si-extensio *om.* D 51-52 hoc-dici: est hoc, potest dici extensio, sicut potest dici Deus F 52 sic: *add.* hoc D | finitus D** 53 11: 21 D | et(1) *om.* F 55 propria D* | quia: qua(?) C* 56 erit(2): *add.* quando non erit Deus C* 57 quando fuit *om.* F** | Deus non est AE | quando(2): *add.* non D 58 Sed *om.* D* 62 *Civitate Dei*, libro 12: *Trinitate*(?), l. 21 F | libro: vel C* 64 atque: aut B | atque huic: ratio ita hic(?) D** 66 quippe: quidem C 67 est(2) *rep.* E* | infinita est C 69-70 in(1)-idea *om.* B 69 ideae in Deo DFG 71 *De: add.* cuius(?) G* | *83: add.* quaestionibus DF | quaestione *om.* D* | 46: (. . .) E** 72 sint ratione F | sint-ratione *om.* C** 72-76 sint-vocare: idest per ideam. Unde in fine capituli ibidem Augustinus: "Quas rationes sive ideas sive formas sive species licet vocare (idest-vocare *om.* G**) sint condita, nec eadem ratione homo qua equus. Hoc autem absurdum est existimare. Singula igitur propriis suunt creata rationibus." AE(*?)G 72 qua: quam C* 73 existimare: aestimare D 74 creata: creatae D creatura F* *om.* B 74-76 Et-vocare *om.* B 77 Item: *add.* ut CD*G | scit *rep.*(?) A* 78 scire(1): *add.* est A* | scire(2): *add.* se AE | scire(3) *om.* B | ita: sic D *add.* et C* 81 vivere *om.* G 82 se scire F | scio *om.* C** | vivere *om.* G 83 duo haec D | addere: addi G 85 intelligat: *add.* se F | se intelligere G | ita: sic B 87 patet: *add.* ex D 90 numerositas: *add.* vel infinitas (*om.* D*) C*D 92 enim *om.* BD** | tantum: tamen C** 92-93 Sed tantum et amplius *om.* C** 93 compatiuntur F patiuntur B | secum: *add.* infinitatem E* | quiddam: quoddam AE ad quaedam(?) D** quidem C** 94 compositivus C** | se: *add.* et C* | et *om.* C* 97 in om. CF | id: illud C | quod: *add.* non E* *om.* D* 98 est *om.* DFG 99 vero: *add.* est G | est(3) *om.* AEF 100 sunt D* | eidem insunt C 101 est: *add.* et C* 103 infinitum non est simplex D 104 aequari *om.* C** 105 est(2): et C* |

53 Job 11, 8-9.

58 Psalm 13, 1; 52, 1.

59 Fishacre, *In I Sent.*, dist. 2. Text edited in A. Daniels, *Quellen und Untersuchungen zur Geschichte der Gottesbeweise im dreizehnten Jahrhundert* (Band 8, Hefte 1-2, of "Beiträge zur Geschichte der Philosophie des Mittelalters" [Münster i. W.: Aschendorff, 1909]), pp. 21-24.

62 Augustinus, *De Civitate Dei*, XII, c. 18 (*PL* XLI, 367).

71 Augustinus, *De Diversis Quaestionibus LXXXIII*, qu. 46 (*PL* XL, 30, 31).

79 Augustinus, *De Trinitate*, XV, c. 12 (*PL* XLII, 1074).

⟨Secunda ratio⟩ Item, cum figurae sint infinitae, et cuilibet earum respondet idea in mente artificis, patet quod erunt in Deo ideae infinitae. Quippe una idea non est alia; alioquin per ideam asini fecisset hominem. Contra, Augustinus, *De 83*, quaestione 46: "Restat ut omnia ratione sint condita, nec eadem ratione homo qua equus. Hoc autem absurdum est existimare. Singula igitur propriis sunt creata rationibus." Et per rationem intelligit ideam. Unde in fine capituli ibidem Augustinus: "Quas rationes sive ideas sive formas sive species licet vocare." Ergo in Deo numerositas infinita est.

⟨Tertia ratio⟩ Item, uno scito, sciuntur infinita; ut qui scit se esse, scit se scire se esse, et scit se scire scire, et ita in infinitum. Unde contra Academicos Augustinus, *De Trinitate*, libro 15, capitulo 13: "In unoquoque scito ita multiplicantur ut reperiantur per infinitum numerum tendere. Qui enim dicit, scio me vivere, unum quid scire se dicit. Perinde, si dicat, scio me scire vivere, duo sunt iam haec. Quod scit haec duo, tertium scire est. Sic potest addere quartum et quintum et innumerabilia." Ergo, cum Deus intelligat se, et item intelligat intelligere se, et ita in infinitum, patet quod in eo sunt infinitae replicationes numerositate.

⟨5⟩ Quod autem non sit infinitus divisione patet, eo quod est simplex.

⟨Quaestio Tertia⟩

Circa tertium primo videtur quod non stent simul numerositas et simplicitas.

⟨1⟩ Infinitum enim est non tantum quin amplius. Sed tantum et amplius non compatitur secum simplicitatem, quia est quiddam compositius quam tantum. Ergo non compatiuntur se infinitum et simplex.

⟨2⟩ Item, omne infinitum excedit finitum non tantum semel, sed infinities. Ergo est in infinitum compositius quam id quod exceditur. Ergo non est simplex.

⟨3⟩ Item, si est infinitum, est divisibile; si vero simplex, est indivisibile. Ergo non simul insunt eidem.

⟨4⟩ Item, in omni genere simplex est minimum in illo genere, ut punctus in genere magnitudinis et instans temporis; et infinitum est maximum. Ergo simplex non est infinitum. Si enim non possunt aequari minimum et maximum, multo magis nec esse idem.

Item, si est simplex est finis, ut punctus lineae. Sed finis non potest esse infinitus. Ergo nec simplex erit infinitum.

⟨5⟩ Item, Augustinus, *De Civitate Dei*, libro 12: "Finitum quantumcumque respectu infiniti minimum est." Ergo infinitum non erit minimum et simplex, sed potius finitum.

⟨Contra⟩ Ad contrarium videtur sic.

⟨1⟩ Si additio ad numerositatem non aufert simplicitatem, sed potius auget eam, patet quod non repugnat numerositas simplicitati. Sed antecedens est verum. Nam cum anima idiotae adepta fuerit tres vel plures veritates, non est compositior quam prius cum esset ignorans, sed forte simplicior; alioquin anima, cum disceret, cresceret.

Item, tunc anima Christi esset summe composita, quae novit omnem veritatem, et minime simplex.

Item, tunc ipsa esset in infinitum compositior quam anima idiotae, propter infinitas veritates.

Item, quia quanto simplicius tanto nobilius, esset anima idiotae nobilior quam sapientis, immo quam Christi, et Christi anima summe ignobilis; et animae in caelo ignobiliores quam illae in inferno, quia hi omnia, illi quasi nulla sciunt.

⟨2⟩ Item, anima intelligens ternarium non est minus simplex quam eadem intelligens binarium; similiter anima intelligens centenarium. Alioquin anima Christi esset summe composita et minime simplex, quae omnes numeros intelligit.

non *om.* G* 106 infinitum erit E 107 libro: vel C* | 12: 22 B 109 erit: est F 112 patet quod *om.* F | non: omnino D** 113 est: *add.* ad F 114 cum: non F 115 anima *om.* F | cum anima AE | disceret: differret B** *add.* et C* 116 tunc: cum D* *om.* C**F | summa B | qui B 117-118 et-idiotae *om.* E** 119 propter-veritates *om.* E 120 quia *om.* BF | esset: *praem.* sic F 121 quam(1): *add.* anima AE | Christi anima: substantia Christi F 123 hi: illi D illae F | illi: illae F 124 intellectus(?) B 126 composita: componi C* 126-127 simplex minime B 127 quae: qui D *praem.* item B* | intelliget B 128 animae *om.* F** 130 adimit D adumat(?) F 134 an(1): de E cum C* | cum *om.* C** | virtuosa vitiosa C | an(2). *add.* scilicet C 134-135 simplicitate: *add.* et C* 136 est *om.* F | simplicior est CD 137 Igitur: Ergo B 138 in: *add.* anima est C* | numerus: *add.* et D* 139 Multiplica D 140 multitudinem: multiplicationem C*F 144 Augustinus: *add.* in praecedenti auctoritate AE 145 veritatem: virtutem C** 146 Aut: *add.* et C* 147 non: nunc CD nec(?) ABG | in infinitum erit B | et *om.* C*D 149 eidem: ei G | enim *om.* D* 150 puncti *om.* D* 151 immo: add. de F 152-153 demonstratione: probatione CDF 153 maiore base D 154 transibit B 155 minore: maiore E* 157 simplicior C 157-158 pares-simplex *om.* D** 158 simplicior C* | repugnat E 159 iam *om.* B | dicta iam E | puncta *rep.* C* 161 maiore: minore F 162 illarum: earum AE | contrahatur E** 163 sic: similiter C* | aeque numerosus est C 164 illa linea AE | consequens: *add.* et C* | aliqua: illa E 165 in

107 Cf. Augustinus, *De Civitate Dei*, XII, c. 12 (*PL* XLI, 360).
139 Psalm 137, 3.
141 Psalm 84 (83), 8.
144 Cf. *supra*, line 79.

Item, anima numerando cresceret, et calculatorum animae mirum immodum crevissent. Ergo, cum talis numerositas in anima non adimat simplicitatem nec minuat, patet quod non repugnant numerositas et simplicitas.

⟨3⟩ Item, vitium sola privatio est et nihil ponit, quia, ut dicit Augustinus, peccatum nihil est, et virtus, scilicet habitus, aliquid est. Quaero ergo an anima, cum fit de vitiosa virtuosa, an recedat a simplicitate, cum crescat in numerositate. Si sic, tunc anima vitiosa est simplicior et perinde nobilior quam virtuosa, et simplicissimo, scilicet Deo, propinquior et similior. Igitur constat quod simplicior est anima virtuosior et tamen in ea est numerus innumerabilis virtutum. Quia qui habet unam habet omnes, Ps.: "Multiplicabis in anima mea virtutem"; per quam multitudinem est accessus ad Deum summe simplicem. Ps.: "Ibunt de virtute in virtutem, videbitur Deus deorum in Sion."

⟨4⟩ Similiter, videtur quod uno scito sciuntur infinita, propter replicationes infinitas, de quibus supra Augustinus. Et tunc anima sciens unicam veritatem per infinitum distaret a simplicitate scientis nullam. Aut numerositas non aufert simplicitatem, et quaelibet anima non erit in infinitum composita et a simplicitate elongatissima.

⟨5⟩ Item, accessus ad simplex est sine diminutione numerositatis, ut patet duabus basibus subtensis eidem angulo. Minor enim earum accedit ad simplicitatem puncti angularis, nec tamen perdidit aliquid de numerositate punctorum, immo singulis punctis in maiore base respondent singula puncta in minore. Quod probatur demonstratione geometrica. Ductis enim lineis a punctis diversis in base maiore ad punctum angularem, transibunt per diversa puncta, licet minus distantia, in base minore. Ergo numerositas lineae maximae est aequalis vel non maior numerositate lineae minimae et fere punctali. Et ita simplicius et minus simplex pares sunt numerositate. Ergo simplex absolute et numerosum non repugnant.

⟨6⟩ Item, ex iam dicta ratione patet quod totidem puncta habet punctus unicus quot linea maxima. Quippe lineae exeuntes a base maiore et terminatae ad punctum angularem habent ipsum pro extremitate, et si una illarum extrahatur, terminatur ad punctum ad quem prius, et sic de singulis. Ergo ille punctus est aeque numerosus sicut linea illa, et per consequens sicut aliqua superficies et sicut aliquod corpus; immo tot puncta sunt in puncto quot in tota mundi

machina, cum a quolibet puncto in mundi machina ad hunc punctum possit duci linea, secundum illud: a puncto ad punctum rectam lineam ducere. Ergo punctus, cum sit simplex, non tamen caret numerositate infinita. Ergo habeo propositum.

⟨7⟩ Item, alicubi invenitur quod quanto aliquid accedit ad simplicissimum, tanto est numerosius, et simplicissimum summe numerosum; quippe ternarius est subduplus ad pauciores numeros quam binarius, et quaternarius quam ternarius. Ergo cum subduplum dicat accidens quod est relatio, patet quod numerus quanto est unitati vicinior, tanto in huius relationibus numerosior. Et unitas, quae est simplicissimum, est sic summe numerosum. Ergo non repugnant simplicitas et numerositas.

Similiter, esto hic arbor centum pedum, et non habet hodie aequalem sibi. Ipsa non crescente excrescunt aliae ad aequalitatem eius, et iam habet relationem aequalitatis decies, cum prius nec semel; non enim videtur quod eadem est relatio aequalitatis qua huic et qua illi aequatur, quia relatio una non habet nisi duo extrema. Et tamen non est magis composita vel minus simplex.

⟨8⟩ Item, in uno nunc temporis sunt infinita prius et posterius natura, ut patet ex Augustino *Super Genesim ad Litteram*, libro 4: "Prius oportet aerem, qui supra est, transeant radii oculorum nostro-

puncto sunt C 166 cum-machina(2) *om.* F** | punctum *om.* F 167 duci: dici C* de D 168 sit *om.* F* 170 alicubi: *praem.* quanto E* | aliquid *om.* ADF**G | accedit aliquid E | ad *om.* E 171 numerosius est (est *om* C*) C 172 pauciores: (. . .) C* 173 quam ternarius *om.* C** 174 est(1) *om.* C* | patet *om.* G* 176 est sic summe *rep.* E* | repugnat DG 178 hic: *add.* esset AE 178-179 aequale ADE 179 crescunt F 180-181 decies-aequalitatis *rep.* F(*?) 181 est *om.* B | relatio est aequalitatis F 182 una *om.* D 184 et *om.* C* 186 oportet: *add.* quod (*om.* D*) BC*DF | supra: infra(?) C** | est: se B 187 tum deinde: cum (tunc [?] D) demum DF | veniat ad solem F 188 Num: Unde C**D** | diximus 'prius' D 189 uno: non D* | tansit *ante* uno F 189-190 uno-omnia om C** 189 obtuitus BF 191 et(2) *om.* F 192 est *om.* B 194 partem AE 195 repugnat A 197 Circa: Contra D** 199 comprehensivam C* 200 apprehensivam(1)-et *om.* B | rationalem: materialem C** 201 est distantia F | inter: *add.* Deum et apprehensivam rationalem D* 201-202 maior quam: minor (maior A**) AE 202 Sed: *add.* apprehensive non potest apprehendere spiritum. Ergo nec rationalis spiritus creatus A* 204 magis: *add.* non potest C* 205-206 ubi-operatio *om.* F 206 finita: infinita E *add.* erit (*om.* D*) C*D | et(1) *om.* D | virtus: *add.* finita (*om.* D**) CD 206-207 Ergo-operatio *om.* C** 209 ultimum: *add.* ad D* 211 enim: quoque F 213-214 lucem intensione F 217 Constat: *add.* quod F 218 anima: ita G (. . .) D** 219-220 infinitum-mundus *om.* AE 220 quomodo: quando C** | Sed *om.* D | Sed si: Si sic F | potuit: possit C** 223 posset: esset B | tota *om.* G

185 Augustinus, *De Genesi ad Litteram*, III, n. 34 (ed. J. Zycha [Vol. 28, Sect. 3, Part 1 of "Corpus Scriptorum Ecclesiasticorum Latinorum" (Vindobonae: F. Tempsky, 1894), p. 135]).

rum et postea quidquid ultra est tum deinde ad solem perveniant, quem videmus. Num igitur quia totiens hic 'prius' diximus et 'postea,' ideo non simul omnia uno ictu transit noster obtutus?" Infra: "Illa omnia tam ampla immensaque spatia simul uno ictu transiri manifestum est et, quid prius et quid posterius transitur, nihilominus certum est."

⟨9⟩ Item, aeternitas simplex est, quia tota simul. Et tamen infinitas temporis partes continet. Ergo numerositas et simplicitas non repugnant.

⟨Quaestio Quarta⟩

Circa quartum videtur primo quod anima non possit ad infinitum Deum, sic.

⟨1⟩ Maior est distantia inter Deum et apprehensivam rationalem quam inter apprehensivam rationalem et apprehensivam sensibilem, quia summa distantia est inter creatorem et creaturam, et maior quam inter creaturas adinvicem. Sed apprehensiva sensitive non potest apprehendere rationalem spiritum. Ergo nec rationalis spiritus creatus multo magis Deum.

⟨2⟩ Item, cum sint tria : substantia, virtus et operatio; ubi substantia est finita, et virtus et operatio. Ergo cum creaturae universaliter substantia sit finita, erit et virtus finita et operatio. Ergo non poterit nisi ad finitum.

⟨3⟩ Item, ultimum de potentia ad quod potest virtus divina est videre se. Ergo si creatura potest ad ultimum de potentia eius, erit creatura aequalis in virtute creatori. Virtus enim in unoquoque est ultimum de potentia.

⟨4⟩ Item, oculus corporalis non potest ad infinitam intensione lucem corporalem. Ergo nec spiritualis ad infinitam spiritualem, scilicet ad lucem inaccessibilem Deum.

⟨Contra⟩ Ad contrarium sic.

⟨1⟩ Constat: ad infinitum extensione si esset tale corpus, posset ad illud intelligendum anima, quia ad omne corpus. Nisi enim philosophi imaginarentur infinitum extensione mundum vel vacuum in quo fiebat mundus, quomodo hoc posuissent? Sed si potuit imaginativa, multo magis intellectiva, si esset.

Item, pupilla oculi potest ad dimidium caeli, et si esset undique pupilla, ad totum posset. Respectu cuius caeli tota terra est punctus

aut nihil. Quanto magis oculus? Et forte posset ad infinitum extensione oculus, si esset.

⟨2⟩ Item, ad infinitum duratione potest anima, cum possit se ipsam intelligere. Et secundum philosophos, motor caeli virtutis finitae ad motum caeli infinitum duratione.

⟨3⟩ Item, ad infinitum divisione potest, quia potest intelligere lineam et angulum.

⟨4⟩ Item, ad infinitum numerositate potest. Constat enim: possibilis est ad sciendum totam geometriam et arithmeticam; ergo ad cognitionem infinitarum figurarum et numerorum.

Item, ut supra dixi, una veritate scita sciuntur infinitae per replicationem, ut supra Augustinus. Ergo, si potest scire unam, et infinitas; immo potest ad infinities infinitas.

⟨5. Primum⟩ Item, ad intensione infinitum potest. Visus enim quod ab excellenti luce corrumpitur est, quia agit mediante organo; quod improportionale et excellens corrumpit organum, non virtutem. Cuius signum est quod si corrupto organo daretur eidem virtuti bene dispositum organum, videret ut prius. Dicit enim Aristoteles quod si seni daretur oculus iuvenis, videret aeque bene ut iuvenis. Ergo, ut videtur, si excellens sensibile non laedit virtutem sed organum, posset virtus, si apprehenderet non mediante organo, in lucem in infinitum intensam, si esset. Multo magis virtus intellectiva, quae non mediante organo intelligit.

224 posset forte B 225 esset: *add.* Quanto magis poterit intellectus ad infinitum extensione BC*F 226 anima *om.* AEFG 227 virtutis: *add.* est F 229 finitum C 231 potest: patet F | enim: cum E 236 infinitas: infinita F *om.* D** 237 Item, ad *om.* D** | intensione: extensionem B 238 quod *om.* C* | est *om.* C* 240 si: sicut B *om.* C* 241 enim *om.* D* 242 si *om.* D* | iuvenis(1): vivens D** | aeque: tam DF | ut *om.* C* 244 in(2) *om.* F 246 organo: *add.* in lucem in infinitum C* 248 autem: enim F | est *om.* D 250 Non autem: nondum(?) F 254 adiuta: adiuncta E* 255 in *om.* D** 256 veritates: virtutes C** 257 quaelibet: qualis B | Ergo: Sed BC*F 258 veritates: virtutes C** | lucem unam F 260 infinitas: infinitam F *om.* D** | intensione: extensione DE* 262 sententiae melioris E 263 respondeo *ante* non (262) G | concedo B 264 potentia *post* bonitate D* | sapientia: *add.* et F 265 Item: Et C | intensione *om.* F** 266 improprie dicatur in eo D 267 magis et minus: maius et maius D | a *om.* D* 268 virtus: (. . .) D** 269 aliqua: alia ADE | imaginetur B imagiretur A 271-273 Similiter-totus *rep.* D* 271 quod: *add.* est F 272 quo: quod G 277 coexisteret: coextitisset (excoisset D*) D 278 infinitae: finitae C* 279 scilicet: id est F 280 Ps. *om.* BCDFG 281 in eo *om.* F | dicatur in eo (in eo *om.* D**) D | dicemus: dicetur BF 282 vero: autem D | sit *om.*

235 Cf. *supra*, l. 79.
241 Aristotle, *De anima*, I, 4, 408 b20-23.
280 Psalm 146, 5.

⟨Secundum⟩ Item, quia intellectus respectu intelligibilis est in potentia essentiali, sensus autem respectu sensibilis est in potentia accidentali; patet quod additio intelligibilis ad intellectum est additio formae et ideo virtutis. Non autem sic in sensu. Et ideo anima per hoc quod intelligit unam veritatem non fit impotentior sed potius potentior ad intelligendum aliam, et illa intellecta tertiam. Et sic quanto plura comprehendit, tanto capacior est ad comprehendendum. Ergo sic per infinitas veritates adiuta, poterit ad infinitum intensione, quia eius virtus videtur aucta in infinitum.

⟨Tertium⟩ Item, potest in infinitas veritates numero, ut supra probatum est. Sed quaelibet veritas est lux mentalis. Ergo infinitae veritates simul efficiunt infinitam unam lucem intensione, sicut infinitae candelae unam lucem corporalem infinitam efficerent. Ergo, quae potest ad numero infinitas, potest ad infinitum intensione.

⟨Solutio Primae et Secundae Quaestionis⟩

⟨Ad primum⟩ Ad hoc sine praeiudicio melioris sententiae non asserendo, respondeo concedendo tres primas rationes probantes quod Deus est infinitus potentia, sapientia, bonitate.

⟨Ad secundum. 1⟩ Item, concedo, quod infinitus intensione, licet in eo improprie dicatur intensio, quia intensio proprie non dicitur nisi in ea natura quae suscipit magis et minus, quod a divina natura valde alienum est. Sed dicitur eius virtus intensa in infinitum quia hoc idem potest quod virtus aliqua si imaginaretur in infinitum intensa.

⟨2⟩ Similiter, concedo quod infinitus extensione illo improprio modo quo dicitur spiritus extensus secundum extensionem corporis cui ita praesens est quod in qualibet parte corporis totus.

⟨3⟩ Similiter, concedo quod infinitus duratione; tamen hoc improprie dicitur, quia duratio proprie non est tota simul. Sed hoc intendo. quod si aliquid imaginaretur infinitum duratione, ut mundus secundum Aristotelem, ei coesset et coexisteret Deus.

⟨4⟩ Similiter, concedo quod infinitus numerositate, quia infinitae sunt in eo veritates; licet omnes in eo sint idipsum, scilicet essentia divina, secundum illud Ps.: "Sapientiae eius non est numerus." Quomodo autem numerus in eo dicatur, in sequentibus dicemus.

⟨5⟩ Quod vero non sit infinitus divisione, immo nec divisibilis, concedo.

⟨Ad objecta 1-5⟩ Ad objecta circa tertium problema probantia quod infinitum et simplex repugnant, sciendum quod infinitum intelligi potest dupliciter, scilicet quantitative et virtualiter, licet proprie secundum Aristotelem infinitum dicatur in quantitatibus tantum. Dico ergo quod illae quinque rationes verum concludunt de infinito quantitative, et tale infinitum non compatitur secum simplicitatem in eodem.

Infinitum autem virtualiter intelligi potest dupliciter, sicut et plus et minus de virtute. Plus enim de virtute intelligimus, cui additum est aliquid de virtute. Et tunc infinitum virtualiter est cui additum est de virtute infinities. Et de sic intellecto infinito virtualiter verum concludunt dictae quinque rationes. Tale enim infinitum virtuale non compatitur secum simplicitatem.

Aliter autem intelligitur plus de virtute non facta additione ad virtutem, sed potius ea elongata ab impediente et faciente eam in potentia et minus in actu; et hoc est a materia. Lux enim cum est incorporata, est impotentior quam non incorporata; non quod si fieret non incorporata, adderetur ei, sed potius elongaretur a faciente eam impotentiorem. Sic dicimus quod rationalis est potentior quam sensitiva, non quia compositior, immo est simplicior; sed quia minus incarnata, cum sensitivae actus non fiat nisi mediante carne, intellectiva vero sine carne. Et ipsa intellectiva quanto magis se subtrahit a carne, tanto est virtuosior ad operationem suam, non dico propter

C** 285 circa: contra BC**F | tertium: ceterum(?) C** | problema tertium probans B 286 et *om.* D** 286-287 potest intelligi B 287 dupliciter: Deus(?) C** *om.* D** 290 secum: *add.* infinitum E* 290-291 in eodem simplicitatem E 292 sicut et *om.* F 294 virtualiter: virtuale A 295 de(2) *om.* F | sic de D 296 quinque dictae AE 299 longata C* 300 in actu *om.* D** | cum est *om.* B 301 incorporata(1): corporata D | potentior G* | non(2) *om.* D* 302 non *om.* AD**EFG** | incorporata *om.* D** | adderentur B* additurC** 302-303 ei-est *om.* F** 303 eam: esse(?) D | quod: *add.* anima B 304 sensitiva: sensiti(?) D** 305-306 intellectiva: intellectivae F 306 se *om.* B | subtrahit se CD 307 est *om.* BDFG | operationem: comparationem F 311 quia: est C** | in se: sibi(?) D** 313 cum alio *om.* B 315 mole: male (?) B** | est(1) *om.* D 316 certe: *praem.* quia G* | non *om.* D* 318 hoc: quod BCDFG | esse: *add.* et C* 319 Deo magis F 320 et(1): *add.* ita B | et(2) *om.* D** 322 infinitum *om.* D** 322-323 additionem infinitam CDF 325-326 quinque dictae B 327 in: de F 329 additionis D* 332 eum: *add.* esse(?) D | affectuum D* 333 affectus D* 334 dicitur Deus CEF 335 ductae C* 336 ad: in B | quodadimit: numerositatem non adimere B 338 Tamen: Unde D** | Augustinus quia D 339 vel: et C*F | dicto(?) C** 340 vel *om.* E* 341 efficitur F 342 unica: una F 343 et: quia C* 344 fit: sit F 346 attendendum: *add.*

288 Aristotle, *Physica*, III, 6, 206 a9-207 a31.

314 Augustinus, *De Trinitate*, VI, c. 8 (*PL* XLII, 929).

318 *Ibid.*

344 Augustinus, *De Quantitate Animae*, c. 19 (*PL* XXXII, 1054).

additionem virtutis, sed potius propter elongationem ab impedimentis.

Et certe, sic dicendo magis de virtute non est dicere compositius, sed potius simplicius, quia simplex negat compositionem in se et compositionem cum alio. Nunc autem plus de virtute dicto modo non est compositius in se; est autem minus compositum cum alio, et ita simplicius. Hoc autem liquet magis ex Augustino, qui dicit: "In his quae non mole magna sunt, hoc est maius esse quod est melius esse." Sed numquid, quia melius, ideo compositius; certe non, quia melius dicitur non propter additionem, sed propter accessum ad optimum. Unde subiungit Augustinus: "Hoc est melius esse quod est magis Deo adhaerere." Et certe accessus ad eum est elongatio ab impedimentis et a materia, et esse simplicius potius quam compositius.

Si ergo dicatur infinitum virtualiter non propter infinitam additionem virtuti, sed propter infinitam elongationem ab impedimentis et a materia, patet quod sic infinitum virtualiter non repugnat, immo congruit magis simplicitati. De sic autem infinito non tenent dictae quinque rationes, ut patet inspicienti.

Quia ergo Deus in se simplex est et carens compositione cum alio, ut sit pars compositi, patet quod est infinitus virtualiter, non propter additiones virtutis factas in infinitum, sed potius quia in infinitum elongatus est ab impedimentis et materia, cum sit substantia omnino separata.

Insuper dicimus eum infinitum virtualiter ratione effectuum, quia idem effectus est ab eo qui esset ab imaginata virtute infinita propter additiones. Sic ergo Deus dicitur infinitus virtualiter duobus modis.

〈Ad rationes ad contrarium〉 Sequentes autem rationes inductae ad contrarium, scilicet ostendentes quod numerositas non adimit simplicitatem, concedi possent.

〈1〉 Tamen quia Augustinus in multis locis videtur sentire quod veritates vel scientiae sunt in anima sicut forma in subiecto, dico accidentalis vel substantialis; et subiectum cum duabus formis substantialibus vel accidentalibus efficiunt unum compositius quam subiectum sine illis vel cum unica earum; mirum videtur quomodo sciens anima non est compositior quam inscia, cum et dicat Augustinus in libro *De Quantitate Animae* quod anima, cum fit peritior, crescit et augetur.

Sed attendendum quod relationes advenientes alicui subiecto non

faciunt ipsum compositius, quia multiplicantur relationes in aliquo subiecto, nulla mutatione etiam facta in eo; ut hoc ligno longiori decurtato fit in alio relatio aequalitatis ad illud, nulla in eo facta mutatione. Nunc autem veritas omnis relatio est, quia adaequatio vel aequalitas quaedam est verbi mentalis et rei, aequalitas autem aut adaequatio relatio est.

⟨Quaestio⟩ Sed dices: licet veritas ipsa relatio sit, tamen verbum mentis, scilicet eius subiectum, non est relatio. Cum ergo non tantum sint in anima veritates, sed ipsa vera, scilicet verba multa, quomodo non est ipsa compositior?

⟨Solutio⟩ Respondeo. Cum verbum quo se loquitur res exterior mihi, scilicet species rei, pervenerit ad intimum sentiens, non procedit ulterius ut intret gignendo se in mentem; sed, ut dicit Augustinus, anima miris modis et mira quadam velocitate efficit in se simile ei quod est in organo intimo, hoc est assimilat se illi speciei susceptae et conformat, ut lux aquae cui contiguatur.

Igitur, cum assimilatio sit dupliciter, scilicet per aliquid communiter communicatum ab utroque similium, et hoc dicitur per participationem; vel per imitationem, ubi nihil est commune similibus; patet quod anima similis sit rei extra vel speciei in intimo instrumento, non per hoc quod habet aliquid commune, sed per imitationem. Et ita haec similitudo fundatur non super aliquid in anima quod sit commune ei et speciei vel rei, sed super ipsam animam. Se ipsa enim similis est. Et ita patet quod propter verbum in mente non est ibi aliquid plus quam prius cum non inerat verbum, nisi

est D 348 etiam mutatione F | lingno F 350 autem *om.* B 350-351 aequalitas vel adaequatio B 351 quaedam est verbi: quasi(?) C** est (*praem.* quaedam D*) ibi (verbi D**) D | et *om.* D* 352 aequatio CF 353 dices: *add.* quod (*om.* D*) D 354-355 sint *ante* tantum D 355 vera: verba F 356 ipsa: in ipso B 357 Cum *om.* F** | loquitur: *add.* rex D* 358 intimum: timum D* 360 efficit *om.* F** | in se *om.* G 360-361 se simile: sensibile D* 362 et conformat *om.* AE 363 duplex BDF | aliquid: quid G 364 communicantum G* 365 est *om.* AD**EG | commune est B 366 similis: simul(?) D** | similis sit: similis fit E fit similis F | speciei: sensei(?) G 368 non *om.* D** 369 super: se(?) C 370 verbum *om.* C** 371 non(2) *om.* C** | inerat: erat A* inhaerat CD** *add.* ibi CDF 375 numerosior: mollior E** | compositior: *add.* est F *om.* D** | illa: *add.* Ex hoc etiam patet secunda G* 376 visae: in se(?) AD** 379 lignum: signum(?) D 381 compositius *om.* D** | ita est G | prius *om.* D** 382 infinitae: insitae AEFG 383 intuemur: intuetur DF *add.* naturaliter A* | actualiter *om.* C**F | sine alia actualiter A* 385 habuit *om.* AEG | ideo: ita D* *praem.* ita B* 387 Ex: Et D* | ratio: (. . .) D** 390 nisi *om.* F 391 in(2) *om.* D 392 virtuosa(1): numerosa D** 396 ex: *add.* iam F | ex dictis *om.* D** 399 circa: contra C**F ad B 400-401 spiritum: speciem F 401-402 esset-teneret *om.* D** 402 rationalem: rationale EF | constat: *add.* quod D 403 quia: quare B** | sensibilis anima B 404 tamen *om.* D* | rationale F 405 et(1): vel B* | corpus BF 406 potius *post* causa AE 408 est: *add.* non B* 410 Ad: *add.* tertium E* 411 idest: scilicet ABE | idest in: et F 412 intensam *om.* D* |

similitudo qua se ipsa anima assimilatur rei vel eius speciei. Similitudo autem relatio est et non facit compositius, quotienscumque multiplicata. Sic ergo patet quod anima habens multas veritates numerosior est, non tamen compositior, ut probat ratio illa.

Quod autem dico animam miris modis assimilare se rei extra visae vel eius similitudini in intimo organo, sic intelligo: sicut atomus habet in se infinitas figuras, vel lignum aliquod, sed sentire eas est ab actu artificis; et tunc cum una sentitur, est ipsum lignum imago alicuius extra ad cuius similitudinem nitebatur artifex, nec est ipsum lignum compositius, cum iam una figura est ita in actu, quam prius; sic in anima naturaliter infinitae sunt similitudines rerum, et tamen unam earum intuemur actualiter sine alia, et tunc quasi actu efficitur similis illi rei extra quam intelligimus. Et ita actualiter habet quod non prius ita actualiter habuit; sed quamdam relationem, et ideo non est compositior.

⟨2⟩ Ex hoc etiam patet secunda ratio, scilicet quomodo anima intelligens binarium rerum non est compositior quam intelligens rem unam.

⟨3⟩ Ad tertiam rationem dici potest quod si virtus non est nisi ordo amoris vel affectionis, cum amor sit in anima vitiosa sicut in virtuosa, vel affectio, non est in virtuosa plus quam in vitiosa nisi ordo. Et hoc quid aliud quam relatio ordinatorum ad invicem? Et ita numerositas virtutum non facit compositius, sicut nec numerositas ordinationum.

⟨4-9⟩ Quarta ratio patet ex dictis ad primam. Ceterae autem concedi possunt.

⟨Solutio Quartae Quaestionis⟩

Sequitur de Obiectis circa Quartum Problema.

⟨1⟩ Et dico ad primum quod si distantia naturarum inter spiritum sensibilem et rationalem esset tota causa quare non apprehendit sensibilis rationalem, teneret ratio. Sed constat: illa distantia non est causa, quia anima sensibilis magis distans a se, scilicet corpus, apprehendere potest; tamen rationalem non potest, cum sit minus distans natura spiritus et spiritus quam spiritus et corporis. Sed potius hoc est causa, quia spiritus sensibilis non apprehendit nisi mediante organo corporali, cui praesens esse potest species corporis apprehensi. Sed instrumentum corporale non est susceptivum speciei creaturae spiritualis, et ideo sensibilis nec seipsam apprehendit.

⟨2⟩ Ad secundum. Haec ratio satis ostendit quod spiritus ratio-

nalis creatus non potest in actionem infinitam, idest in infinitum intensam, nec in opus operatum quod sit infinitum. Sed non probat quin possit apprehendere finite rem infinitam. Unde non potest anima, quia finita est, videre Deum ita limpide ut ipse se, scilicet in infinitum limpide.

⟨3⟩ Ad tertium patet. Ultimum de potentia Dei est videre se, sed non quocumque modo, sed limpidissime. Et ideo, licet creatura ipsum possit videre, non aequatur ei, quia non videt eum ita limpide ut ipse se.

⟨4⟩ Ad quartum patet. Quod enim visus non sustinet lucem intensam valde, non est propter virtutem visivam, sed propter organum. Nunc autem anima non intelligit per organum.

Ad Obiecta in Contrarium, scilicet ostendentia quod intellectus creatus potest ad infinitum.

⟨1⟩ Sciendum quod posset ad infinitum extensione, si esset. Audeo dicere etiam quod ita facile intelligeret infinitum extensione sicut finitum. Distinguo tamen quod scire finitum extensione est dupliciter imaginabile, scilicet scire eius naturam, vel scire eius mensuram. Similiter, scire infinitum extensione potest significare aut quod sciatur eius natura aut quod eius mensura. Ad primum, scilicet scire in infinitum extensi naturam, potest anima, quia, cum illud extensum sit homogeneum et ideo eiusdem naturae in toto et in parte, scita minimae partis eius natura, tota illa infinita scitur; immo

nec-infinitum *om.* D** | operatum: operatur E | sit: fit G 414 se *om.* E** | in *om.* D* 416 Ultimum: *add.* enim C 417 creatura licet D 418 aequaliter C* 419 ipse: *add.* videt C 420 enim: eius(?) D** 422 non *om.* F 423 in *om.* C** 425 Sciendum-infinitum *om.* F 426 etiam dicere F | etiam: autem C** 426-427 sicut-est *om.* D** 427 finitum(2): infinitum E 428 imaginatione E 431 in *om.* D*F | extensione F* | cum: tamen F 432 eiusdem: eius C** | in(2) *om.* ABC 433 illa: ancilla C* | immo: *praem.* immo scito indivisibili eius, scilicet puncto, a quo fluit tota illa infinita scitur B* 434 illius: eius F 438-439 et(1)-finitum *om.* B 438 ipsum: *add.* et cum(?) facile(?) C* 439 ad *om.* AEG 440 idest: *add.* et C* 441-442 verorum: verborum D* 442 scire C* 443 immensum: infinitum extensum F 444 sciatur B | ad: id C** | ad quod: aliquid D** 448 infinitum: idest(?) (fieri [?] D*) D 449 nisi: *add.* per positionem et affirmationem quam negat C* 451-452 potest intelligi CD 452 id *om.* D* 455 durationem: *add.* scilicet F | quidem: (. . .) E** | si: sic C* 456 omnino: omni F | eodem *rep.* D* 457 durationis huius G 458 eius: (. . .) D** | quae: quia ([. . .] D**) D | compositionem D* 459 cognoscitur: cogitur(?) A cogit B 462 infinitas: *add.* finitas F* | potest *om.* D** 463 omnes divisiones: divisiones omnes F *om.* C**D 464 et *om.* B 465 intelliguntur E 466 infinitatem C* 468 beatos F 469 veras: notas AE 471 possit D 471-472 potest *post* duratione E 472 eius: est B 474 permaneat C* 475 habet F 477 intel-

471 Averroes, *In II de Caelo*, comm. 3 (*Aristotelis Omnia quae extant Opera . . .* [Venetiis: Juntas, 1574], V, ff. 96vb-97ra).

scito indivisibili eius, scilicet puncto, a quo fluit tota natura illius infinitae magnitudinis. Et quia illa natura infiniti quanti homogenei est quiddam finitum et habet in anima similitudinem quamdam finitam sicut minima pars eiusdem infiniti, patet quod sic illud infinitum finitum est, et potest anima ad ipsum et aeque facile sicut ad minimum eius et finitum. Scire autem eam, scilicet extensionem infinitam, idest mensuram eius, ⟨non potest; quia,⟩ cum nihil sciatur nisi verum, et intellectus sive visio intellectualis sit tantum verorum, eius mensura sciri non potest, cum non sit mensuratum sed immensum. Sed tunc scitur infinitum extensione hoc modo, cum scitur esse infinitum; ad quod potest anima, cum intellectus huius termini "esse infinitum" sit intellectus finitus et facile intelligibilis. Quippe significatum huius termini "infinitum" privatio vel negatio est, et ideo non intelligitur nisi per positionem et affirmationem quam negat. Et ideo significatum per hoc nomen "infinitum" non intelligitur nisi per significatum huius nominis "finitum." Sicut ergo finiti significatio potest intelligi a mente nostra, sic et infiniti.

⟨2⟩ Ad secundum dico quod posse ad infinitum duratione intelligi potest dupliciter. Uno modo hoc est posse ad id intelligendum quod quidem est durabile in infinitum; sic potest anima ad infinitum duratione, quia ad se ipsam. Alio modo hoc est posse intelligere illam infinitam durationem, quod quidem potest anima, ut patet si distinguatur omnino eodem modo quo iam dixi de magnitudine infinita. Natura enim huius durationis infinitae finita est et mensura eius nulla; quae negatio scitur per positionem, scilicet per hoc quod cognoscitur duratio finita.

⟨3⟩ Ad tertium distinguo sicut ad secundum, quia ad lineam finitam quae tamen divisibilis est in infinitum, potest anima, quippe et sensus visus. Sed ad ipsas divisiones infinitas intelligendo potest. Quia enim omnes divisiones in linea possibiles sunt actus omnino consimiles, patet quod una intellecta, intelliguntur et omnes. Sed infinitas horum actuum, scilicet divisionum, non intelligitur nisi per finitatem quam negat vel privat, ut supra dictum est.

⟨4⟩ Ad quartum fateor, non video quin intellectus possit intelligere infinitas veritates numero et simul—dico, iam beatus—ut conclusiones veras de singulis figuris et numeris; quae, constat, sunt infinita, et ideo conclusiones verae de eis sunt infinitae.

Quippe dicit Averroes quod motor caeli potest ad motum infinitum duratione. Cuius ratia est quod virtus eius finita non dimi-

nuitur in movendo, et ideo, una revolutione perfecta, sicut potuit ad illam, cum omnino maneat virtus, potest ad aliam, et ita ad infinitas revolutiones. Similiter, cum anima habeat virtutem intelligendi unam veritatem, quia, illa intellecta, non minuitur virtus eius ad intelligendum aliam, immo potius augetur aut saltem non minuitur, poterit ad infinitas. Et sicut in illo motore, ratione dicta, non accidit in movendo labor vel poena, sic nec in isto apprehendente.

Imaginatio autem aliquorum qui ponunt quod non potest anima ad infinitas simul, sic est: ponunt enim non totam animam esse ad singula intellecta, sed partim ad unam, partim ad aliam, secundum illud: pluribus intentus minor est ad singula sensus. Et ideo, quia finita est secundum eos, non potest ad infinita distrahi.

Sed falsa est haec imaginatio secundum statum patriae. Sicut enim dictus motor totus efficit unam caeli revolutionem, et totus secundam, et ita infinitas posset; sic anima tota in patria erit ad singulas veritates infinitas, sicut nunc est in infinitis partibus sui corporis, ita quod in singulis tota. Infinitatem autem ipsam veritatum non intelligit nisi per positionem cuius est privatio, sicut supra frequenter dixi. Unde potest dici quod sicut peccatum, quia privatio est, non est de numero intelligibilium, similiter nec poena et universaliter omnis privatio, potest dici quod non intelligitur infinitum, sed tantum finitum. Augustinus, *De 83*, quaestione 66: "Sicut tenebrae oculis non videndo, sic peccata mente ignorando sentiuntur, ex illa locutione arbitror esse dictum: 'Delicta quis intelligit?'." Cum

ligendam BDFG | non *om.* D* 478 infinita D 479 isto: illo G 480 Imaginatio *rep.* B | aliquorum: illorum F | qui: *add.* non C* 481 infinitas: infinita D *add.* veritates F | animam totam CD 483 intentis B 484 finita: infinita B 485 enim *om.* F 486 dictus: dicit(?) C** | caeli *om.* F 487 ita: *add.* in F 488 veritates: virtutes C**D** | infinitas: finitas D* | in *om.* F | corporis sui F 489 autem *om.* B | veritatum: veritatem C* *om.* E 490-493 supra-privatio: privatio potest dici AE 491-492 est privatio B 493 potest dici *om.* E** 494 66 *om.* F 496 dictum: dicendum(?) D** | intelliget D 500 Ad quintum *om.* E 501 excellens: intellectus C** | vel: et F 502 vel: et F 503 tantum: tamen F *add.* originem D* 504 esset: est AE 505 dicitur B | Augustinus *om.* B | non(1) *om.* D | non(2): nec B 507 spiritualem lucem F 509 intellectus: *add.* eis B* 510 in: ad F | ipsam AE | ita(2): ideo (ita C**) CG | ratio prima AE 511 secundam BEG | tenet: (. . .) D** | enim *om.* B 512 intellectivae AE | intensive: *add.* potentiae G* 514 est: est (*om.* F**) non F | omnibus veritatibus F | sicut: sic C 516 fit: fuit D* 517 scita: si ita(?) D** | geometricae D* | viam: iam D** | cognoscendum B | aliam cognoscendam CD 518 decursum CDE 518-519 demonstrationis: *add.* non C* 521 per *om.* D** | mixtionem F 522 cum: in F 524 misceantur C | uniat D* 525 in anima *om.* B 526 et est tantum: (. . . . .) D** 528 afinitae C* 528-529 intellectiva: intelligentia B 529 posset C 531 sufficiant C*G | est(1) *om.* F 531-532 est(2) *post* possibilis D 532 creatura F 533 libro 1 Confessionum F 534 cor est B* | autem: iam B 535 hunc: finis(?)

494 Augustinus, *De Diversis Quaestionibus LXXXIII*, qu. 66 (*PL* XL, 64).

532 Augustinus, *Confessionum Libri XIII*, Lib. I, c. 1 (ed. Pierre de Labriolle [Paris: "Les Belles Lettres," 1933], I, 2).

ergo dicitur quod infinitum non potest intelligi, sed tantum finitum, sic intelligatur, sicut dicitur quod tenebrae non videntur, sed non videndo videntur, quia privatio est.

⟨5⟩ Ad quintum. Ad primum dico, sine praeiudicio melioris sententiae, quod excellens lux corporalis vel intensa in infinitum, ut si adessent infinitae candelae vel stellae, non laederent virtutem visivam, sed tantum organum. Quippe lux illa secundum Augustinum corpus esset et ideo spiritu sensibili ignobilior. Sed ignobilius, ut dicit Augustinus, non agit in nobilius. Quanto magis non laedit nec corrumpit? Numquam tamen tanta lux vel erit vel fuit.

Sed ista ratio non potest extendi ad lucem spiritualem. Quippe ipsa veritas intellecta est nobilior quam intellectus apprehendens forsitan, cum fiat ei forma, et intellectus fiat illi veritati tamquam materia, et ita posset agere in ipsum. Et ita prima ratio non cogit.

Ad secundum dico quod non tenet. Probat enim quod, cum infinitae veritates intelligentur, erit virtus intellectiva intensive infinitae potestatis ad intelligendum; quod non concedo. Dici ergo potest quod anima creata est depicta veritatibus omnibus, sicut videtur velle Augustinus in *Libro Retractationum*. Et ideo additio veritatis ei non fit, nec additio virtutis, maxime secundum statum caeli. Nunc enim scita una propositio geometriae dat viam ad cognoscendam aliam per viam demonstrationis. Sed non concedo talem discursum demonstrationis esse necessarium in patria.

Ad tertium dico quod non intenditur aliquid per appositionem consimilis, sed potius per quamdam admixtionem et unionem eorum; ut cum calido apponitur calidum, ut aqua calida multum aquae calidae aequaliter, non fit calidius nisi admisceantur et uniantur. Nec calida frigidae apposita eam calefacit nisi admisceatur et uniatur. Nunc autem veritates in anima infinitae non admiscentur nec uniuntur, sed manent distinctae, et est tantum simultas, non unitas earum in anima. Et ideo non fit ex eis unum aliquid intensius.

⟨Quaestio⟩ Sed nunc restat dicere quomodo virtutis finitae intellectiva creata possit ad Deum, qui est absolute infinitus; et quomodo numerositas in eo suae simplicitati non repugnet.

⟨Solutio⟩ Ad primum sufficiunt duo. Unum est quod ipsa est creata possibilis ad huius infiniti apprehensionem. Unde Augustinus, *Confessionum* libro 1, in principio: "Fecisti nos ad te, et inquietum est cor nostrum, donec requiescat in te." Alterum autem est, quod educitur de potentia in actum hunc adiutorio eiusdem virtutis infi-

nitae. Nimirum cum ignis corporalis non sit possibilis creatus ad agendum in spiritum, tamen Deus utitur eo ad cruciandum eum, efficiens ipsum potentem ad id quod non est natus; quanto magis educet animam in actum ad quem est nata?

Ad secundum notandum quod Augustinus dicit, *Super Genesim ad Litteram*, libro 4, quod in Deo est numerus sine numero. Quod cum idem videatur quod numerus non numerus, et ita contradictio, attendendum quod hoc tripliciter potest intelligi.

Uno modo sic, secundum Magistrum in *Sententiis*: nomina numeralia in Deo nihil ponunt affirmative. Unde, cum dicitur "tres personae," sensus est, secundum eum, "non tantum una nec tantum duae." Similiter, cum in Deo dicitur numerus veritatum vel idearum, nihil ponitur, sed tantum negatur. Et hoc potest significare quod dicit Augustinus, ibi: "numerum sine numero," idest nomina numeralia nihil ponentia, sed tantum abnegantia. Sed si hoc est verum, patet quod sic dicere in eo numerum non est in eo dicere aliquid, sed negare. Nunc autem negationes non faciunt compositius nec repugnant simplicitati; ergo nec sic numerus in Deo vel personarum, vel veritatum, vel idearum.

Secundo modo sic: unitas non dicitur univoce in creatore et creaturis, et ideo nec numerus. Et tunc potest esse sensus: numerus in Deo est sine numero illo qui est in creaturis. Et cum in numero

D** 536 Nimirum: isti(?) mirum D* 538 potentem: potentiae G | id: *add.* ad C*DF 539 animam: hominem E* | innata E* 540-541 dicit *post* 4 D 541 quod *om.* B 542 quod *om.* G* 543 intelligi potest G 544 in Sententiis: in se nunc(?) D** 545 nihil: non C**D | ponunt: *add.* aliquid (*om.* D**) C*D 546 tantum(1): tamen F *om.* D* | nec: non F 549 ibi Augustinus G 550 numerabilia C* 551 in eo *om.* F 553 sic: est E 555 non dicitur *om.* D** | univoce: *add.* et B | et: *add.* in B | 557 illo: *add.* scilicet F 559 qui-Deo: quidem in Deo qui dicitur E | non: *add.* est (*om.* F**) BF 562 una(1): *add.* earum F | Sed-earum *om.* F 563 est *om.* B 564 totum: *add.* quod patet quia D*G | et(2): nec B 565 Quippe: Quia G 565-566 simplicis: *add.* (. . .) G* 566 additio *om.* D** 567 eiusdem: eius (eiusdem C*) ACD**EG | bis *om.* D** | maius: magis C*F 568 idem: *add.* homo F 569 non *om.* D** 571 numerus *om.* C** 572 nec: vel D* *praem.* vel E* | maius: magis G | repugnant F | ipse: ipsi D ille B 573 dicit B dicas C | Nonne: Non AEG Immo F 574 vel: ut D *om.* E* 575 numerans est: numerus D** 575-576 et-eo *om.* F 576-577 in(1)-numeratus *om.* D** (576 ipso: eo | ipse: ipsum) 576 eo: *add.* est C* | ipso: eo C** (Cf. *supra*, 576-577) | ipse: ipsum BC (cf. *supra*, 576-577) 576-577 in eo *om.* C 578 sit *om.* C* 581 redeant C* | in Deo numeralia AE 582 forte *om.* B 583 in creaturis ponit F | et *om.* F | numeratus: *add.* et D* *om.* F** | etiam *om.* F 584 creatura: *add.* ibi(?) A | sunt univoca: est univocum F.

540 Augustinus, *De Genesi ad Litteram*, IV, c. 4 (ed. J. Zycha, p. 100).

544 P. Lombardus, *Quatuor Libri Sententiarum*, Lib. I, dist. 24 *passim* (Bonaventura, *Opera Omnia* [Quaracchi: Ex Typographia Collegii S. Bonaventurae, 1882], I, 418-19).

549 Cf. *supra*, l. 540.

581 Cf. *supra*, l. 544.

qui est in creaturis sit pars et totum, patet quod ille repugnat simplicitati. Sed numerus qui dicitur in Deo non univocus dicto numero in creaturis, non habet partem et totum et ideo nec simplicitati repugnat; et ideo tres personae divinae non sunt aliquid maius quam una. Sed tres personae in creaturis sunt plus quam una earum.

Tertio modo sic: est numerus numerans et numerus numeratus. Nunc autem in numero numerante non est pars et totum, nec maius et minus. Quippe ille numerus fit per replicationem eiusdem et simplicis unitatis in anima. Nunc autem additio alicuius facit maius, non replicatio eiusdem simplicis; ut idem homo bis non est maius quam idem semel. Et de isto numero numerante intelligi potest illud Aristotelis: senarius non est sex unitates, sed sexies unum. Dico ergo quod in Deo est numerus numerans sine numero, idest non numerus numeratus. Et quia, ut dixi, in numerante non est totum et pars, nec maius vel minus, non repugnat ipse simplicitati.

Quod si dicis, Nonne tres personae in Deo sunt numerus numeratus? respondeo: Cum mens divina numerat in se tres personas vel mille ideas, ille numerus numerans est in eo, et numerus numeratus est in eo, et nihil est in ipso quod non sit ipse. Et ideo idem est in eo numerus numerans et numerus numeratus, et ideo non repugnat iste numerus numeratus simplicitati, cum et ipse sit numerus numerans.

Et forte istae tres expositiones eius quod est numerus sine numero in idem redeunt. Quod enim dixit Magister, numeralia in Deo nihil ponere, forte non intendit nisi quod non ponunt aliquid tale quale ponunt in creaturis, et numerus numeratus, numerus etiam numerans, in Deo et anima vel creatura non sunt univoca.

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Insight: A Study of Human Understanding. **By Bernard J. F. Lonergan, S.J. New York: Philosophical Library; London: Longmans, Green & Co.; 1957. Pp. xxx + 785. $10.00.**

Several years ago it became known that the author of a series of profound studies of St. Thomas's thought on the *verbum* and *gratia operans*, which had appeared in *Theological Studies* during the late forties, was preparing to publish a creative work on the nature of knowledge under the title *Insight*. This book, which was awaited with no little anticipation, has now appeared. It has not disappointed. More than a study of knowledge, it is a creative synthesis of vast scope and consummately skillful execution.

Insight is a long and dense book, and an important book. Consequently, if a review is to meet the demand for more than just a notice of publication it must try to say a great deal. That is my only excuse for the length of the following discussion, which will touch on the book's plan, its starting point, its characteristic feature, some aspects of its preparatory analyses of physics, and, finally, something of a comment on its style. Despite the fact that the book is provided with an excellent index, I have thought it useful to include rather many quotations and page references.

Father Lonergan places the purpose of his book in aiding the reader's advance toward an insight into insight. One is invited to the "personal, decisive act" by which rational self-consciousness takes clear and distinct possession of itself. "Thoroughly understand," he writes, "what it is to understand, and not only will you understand the broad lines of all there is to be understood but also you will possess a fixed base, an invariant pattern, opening upon all further developments of understanding" (p. xxviii). The actual process of growth and enrichment in understanding can, naturally enough, be carried only so far in one book. The self-appropriation of one's own intellectual and rational self-consciousness begins in *Insight* as cognitional theory, expands into a metaphysics derived from the known structure of one's knowing and an ethics resulting from the knowledge of the compound structure of one's knowing and doing, mounts to a conception and affimation of God, "only to be confronted with a problem of evil that demands the transformation of self-reliant intelligence into an *intellectus quaerens fidem*" (p. 731). At this

point Father Lonergan breaks off his study and in a brief epilogue discusses the relevance of what has gone before for the "new and higher collaboration of minds that has God as its author and its guide" (p. 731).

The principal division of the book is into two parts. The first studies insight as an activity and attempts to specify what is happening when one knows, while the second studies insight as knowledge and tries to determine what is known when one knows. In the first part Father Lonergan is concerned with careful and probing investigations into three types of intellectual activity: common sense, mathematics, and physics. Among these he places the greatest importance on mathematical physics because he feels that one can most exactly apprehend that endeavor of mind which itself is most devoted to exactitude and in its results attains the greatest exactitude (see p. xx). In fact, the first five of the book's twenty chapters are essentially given over to talking about physics. Happily Father Lonergan approaches his subject here on that level of mathematical competence which is the unique road (*via dolorosa* though it be) to adequate understanding. As an instance of the standard envisaged, he has chosen to refer throughout to *Foundations of Physics* by R. B. Lindsay and Henry Margenau, a first-rate work that hardly shows its twenty years. In the second part one finds discussions of the primordial judgment (self-affirmation), being, metaphysics, ethics, and God. Anyone who desires to know rather more about the contents of *Insight*, without reading the book, and something about the relation of this work to Father Lonergan's other writings may consult the appreciation by a disciple—Frederick E. Crowe, S.J., "The Origin and Scope of Bernard Lonergan's 'Insight'," *Sciences ecclésiastiques* (Montreal), IX (October 1957), 263-95.

Why does Father Lonergan begin by analyzing acts of knowing? I believe there are two reasons; we might refer to them as the interior moment and the exterior moment.

The interior moment is the interior drive and desire to understand, an "Eros of the mind." This immanent urge is the basic fact. It is anterior, Father Lonergan says, to all effort at understanding and to all understanding (see p. 637). If one asks the question, "Why are we committed to the realm of fact?" it will not do to answer, as some would, that our desire to know is an elicited desire, a desire awakened by the initial partial manifestation of being's intelligibility and a desire at all points controlled by the actual deepening and widening of one's mastery of that intelligibility. Father Lonergan's answer to the question is explicit and emotive. "We are committed," he writes,

> not by knowing what it is and that it is worth while, but by an inability to avoid experience, by the subtle conquest in us of the

> Eros that would understand, by the inevitable aftermath of that sweet adventure when a rationality identical with us demands the absolute, refuses unreserved assent to less than the unconditioned and, when that is attained, imposes upon us a commitment in which we bow to an immanent Anagke (p. 331).

The initial cognitional theory must then necessarily be a study not of knowledge as a revelation and a manifestation, because the first concern is not with what we know, but of knowledge as an act with a determined structure.

The exterior moment is provided by Father Lonergan's concern with Gödel's theorems. These theorems state that in certain axiomatic mathematical systems, such as that of A. N. Whitehead and Bertrand Russell's *Principia Mathematica*, (*a*) one can construct undecidable propositions—that is, propositions such that neither the proposition nor its contradictory can be proven—and (*b*) by arguments *within* the system one cannot prove the system to be simply consistent—that is, one cannot show there is no proposition such that both it and its contradictory can be proven. The second theorem particularly is troublesome. It means that the consistency of a system can be proved only in a higher system (metalanguage), and that of the higher system in a still higher system (meta-metalanguage), and so on. Evidently Father Lonergan believes he must avoid the strictures of this theorem and that the way to do it is by discussing knowledge not in terms of what one knows but of how one knows. As a result the ascending sequence of metalanguages is irrelevant since they are concerned with the *what*, whereas the *how*, which is the ultimate of knowledge, is invariant throughout (see pp. xxv-xxvi, 361, 388, 677).

In placing his starting point in the analysis of acts of knowledge urged on by an interior drive, Father Lonergan lays the foundation for what I would suggest to be the characteristic feature of his entire study; namely, the absence of a distinction between those intelligibilities immanent in the objects and patterns of experience, and those intelligibilities projected by the knower into objects and patterns of experience. To develop this distinction fully would require a book, perhaps a book as long as *Insight*. But the fundamental outline can be sketched briefly.

By intelligibilities one can understand here, with Father Lonergan (see p. 20), necessities, unities, and relations. In various instances or aspects of experience, there are recognized certain necessities, certain unities, and certain relations as immanent in the objects of this experience. These intelligibilities are of different sorts. They range from the comparatively simple case involving the awareness that this right hand is not this left hand (identity and contradiction), through more complex instances like

one's grasp of his influence on the piece of paper being crumpled in his hand (cause and effect), to such subtle examples as the apprehension of the dependency of limited beings (contingency). These intelligibilities and others like them are, it may be said, truly immanent in the things of experience and are simultaneously recognized and affirmed in judgments about them.

In various other instances or aspects of experience, one comes upon not necessity, unity, and relation, but rather regularity, separateness, and sequence. These latter three are most perfectly realized in the numerical data from experiments in physical science. Now, regularity, separateness, and sequence are not necessity, unity, and relation; but it is the central and specifying methodological trait of contemporary physics that the first set can be converted into the second by constructing a mathematical theory of the event. Necessity is found in the logical structure of the implications of mathematical functions; unity is found in the absence of further interaction terms in the defining Hamiltonian; and relation is found in the assignment of contours of integration so that the response vanishes for times earlier than the beginning of the excitation. Through the medium of a mathematical theory, constructed by hypothesis and verified by comparison with experiment, necessity, unity, and relation are imposed upon experience. Such are the intelligibilities projected into reality, as distinguished from intelligibilities there immanent.

With Father Lonergan matters are otherwise. He is indeed concerned with a distinction in ways of knowing, but one rather different from that sketched above. For him the vital disjunction is between the knowing which means asking intelligent questions and giving reasonable answers, and the knowing by which a cat knows milk (see p. 253). An intelligible realism is not easily found, for "there are two quite different realisms," he writes.

> There is an incoherent realism, half animal and half human, that poses as a half-way house between materialism and idealism and, on the other hand, there is an intelligent and reasonable realism between which and materialism the half-way house is idealism (p. xxviii).

Once we are in the second and properly realistic realm of knowing, everything, he says, is of a piece. We find ourselves faced with a multitude of data into which by anticipation, question, and answer we fit intelligibility. "The Humean world of mere impressions," Father Lonergan writes, "comes to me as a puzzle to be pieced together. I want to understand, to grasp intelligible unities and relations, to know what's up and where I stand" (p. 324). The intelligibilities which put order into the puzzle form a "succession of higher viewpoints; each is expressed in its

own system of correlations . . . In this fashion, one proceeds from the subatomic to the chemical, from the chemical to the biological, from the biological to the sensitive, and from the sensitive to the intelligent" (p. 268). The distinction is not in kind but in inclusiveness. The Einsteinian concept of space-time, for example, which was characterized above as an intelligibility projected into reality, is immanent in sensible data for Father Lonergan. In its relation to experience it is typical of all concepts, and he is led necessarily to the view that "the real is what is to be known by verified hypothesis" (p. 259).

To present this position more clearly will require some elaboration of Father Lonergan's above-mentioned disjunction in knowledge. On the one hand he has *thing*, which is the "unity, identity, whole in data"; and on the other hand he has *body*, which is the "already out there now real." To give a few instances, the thing may be an electron, molecule, cell, or plant; all these can be explained, but only some can be directly observed and described. The body, for its part, is an object of extroverted biological consciousness like the cat's saucer of milk. Now, among various alternative positions, the only relevant one acknowledged is a form of crude intuitionism, or "uncritical realism." Apropos of the uncritical realist, Father Lonergan has this to say:

> On his own view the empirical scientist understands, not reality but phenomena; beyond the unities and relations, grasped by the scientist, there is a deeper reality, a metaphysical essence, apprehended by philosophic intuition. But what is this philosophic intuition? I have looked for it and failed to find it. I know no reason for affirming its occurrence, and I know no reason for refusing to identify the alleged metaphysical essence with the already, quite precisely, defined notion of "body" (p. 269).

Father Lonergan's thing-body division of knowledge misses, it may be urged, the fundamental opposition and complementarity of projected and immanent intelligibility; and as a consequence all genuine intelligibility is constrained to find its place in a system of nested intervals along the line of verified hypothesis.

From this stage on, the development of the synthesis in *Insight* is more or less determined, though the actual working out demanded uncommonly skillful flexibility. Judgment becomes the affirmation of a proposition, for it consists in reflective understanding's pronouncement on the correctness of the insight in which intelligence has tentatively gathered a plurality of concepts. Being receives an operational definition as the objective of the pure desire to know and is identified as what is to be known by the totality of true judgments. Metaphysics, in its

turn, becomes an ordered set of kinds of knowledge acts which exhausts the resources of the human mind to anticipate what it can intelligently and reasonably affirm. Whence the relation of the natural sciences to metaphysics follows straightly. The sciences become the "concrete prolongations" of metaphysics (p. 393), whose task it is to fill in and specify the structure. Metaphysics leaves the content of our knowledge of being yet to be determined by a knowledge of forms. And

> if one wants to know just what forms are, the proper procedure is to give up metaphysics and turn to the sciences; for forms become known inasmuch as the sciences approximate towards their ideal of complete explanation; and there is no method, apart from scientific method, by which one can reach such explanation (p. 498).

Metaphysics itself is but a dynamic structure "in which one grasps the relations between experience, understanding, and judgment" (p. 498). Perhaps it is nowhere clearer that Father Lonergan intends this account of the science-metaphysics relation to be taken with absolute seriousness than when he suggests energy to be *de facto* prime potency (see pp. 443 f.).

The variety of brilliantly erudite analyses in physics, mathematics, and "common sense" with which Father Lonergan prepares the way for the articulation of his synthesis presents something of a problem to any reviewer. On the one hand it is the general sweep of these analyses and not the detail which is relevant, and yet on the other hand it is only in the details that one can test whether or not the author has the experimental basis of his work firmly in hand. At the calculated risk, therefore, of seeming merely contentious, I should like to examine more closely some aspects of this basis. I shall stick by and large to physics.

In discussing the theory of relativity, Father Lonergan maintains that its basic postulate rests upon a structural feature of our cognitional process. Because, he says, scientific laws are independent of spatio-temporal differences in the scientists, it follows as a general anticipation based on cognitional theory that physical laws will display certain invariance properties under space-time transformations (see p. 41). But, in fact, any given postulate of invariance is simply an expression of the hope for simplicity. And how niggardly has been the fulfillment of that hope is plain to see if one observes the complex relationships which have had to be postulated in the course of time between space rotations and reflections, time reflection, charge conjugation, and parity conservation and nonconservation in strong and weak interactions.

Another instance of the same emphasis on insight into intelligibility, where actually postulate and definition are operating, is found in Father Lonergan's discussion of infinite sums (see p. 60). He talks about

"absence of further intelligibility in the remainder" as the reason why we go from the relation

$$\frac{1}{2}+\frac{1}{4}+\frac{1}{8}+\ldots\left(\frac{1}{2}\right)^n=1-\left(\frac{1}{2}\right)^n$$

to the statement

$$\sum_{n=1}^{n=\infty}\left(\frac{1}{2}\right)^n=1\,.$$

In reality, however, the transition is justified only by the carefully defined notion of limit and Cauchy sum. The role of definition in the handling of infinite series is even more evident in the case of a series such as $S=1-1+1-1+\ldots$, which requires the more advanced concepts of Cesàro or Abel sum.

From such misunderstandings as this, it seems, comes Father Lonergan's talk of *correct* physical explanations of space and time (see pp. 149, 152). His use of the word "correct," for example, in the second paragraph of the section on "Rods and Clocks" (p. 160) tempts one to quote James Clerk Maxwell's comments about Herbert Spencer's use of the word "force," as related by Lindsay and Margenau in their book mentioned above. This may also be the reason behind the apparent confusion among "observer," "frame of reference," and "observable" which leads to the wrongly supposed opposition between quantum mechanics and general relativity (see p. 98).

With respect to the subsequent development of *Insight*, the most important concept operative in the initial analyses is the notion of mathematical probability. It might have been used with more precision. For example, Father Lonergan describes the world process in terms of an emergent evolution in which the various systems arise in accord with their respective probabilities. "No matter how slight," he says, "the probability of the realization of the most developed and most conditioned schemes, the emergence of those schemes can be *assured* by sufficiently increasing absolute numbers and sufficiently prolonging intervals of time" (p. 126; italics added). But, in fact, probability theory never assures any actual event. To take the apparently most contrary example, consider the random flipping of an unbiased coin. Probability theory says that the proportion of heads will approach ½ as the number of tosses increases *without bound*. But this last phrase, "without bound," is what causes most of the confusion in trying to talk of fact in terms of mathematical probabilities, for it has to be taken quite literally. As a result, any finite number, however large, of successive tosses yielding, for instance, only tails has a nonvanishing probability of occurring. Nothing, in other words, can be assured in the order of fact by probability theory alone, because the contrary of any eventuality always has some probability. The

most one can say is that statistical theories are trustworthy guides in those areas where past experience has proven them reliable and useful.

A more far-reaching difficulty involved in Father Lonergan's treatment of probability arises from his insistence that statistical laws are absolutely necessary for our understanding of a given physical event (see pp. 53, 113). The necessary consequence of this position, coupled with his linear theory of knowledge, is that the material universe as a whole becomes unintelligible. To see how this follows, we need only consider briefly the sort of systems to which a statistical theory can apply and, in particular, the relation of statistics to the single event. In the first case one has an "isolated" system, by which is meant a system that is not interacting with other systems and whose state is exhaustively described. Two possibilities present themselves here; there may be either a single such system or an assembly of many such systems. In the instance of a single system, probability can apply only to a sequence of repetitions of a process or event; and it can give the fact of a statistical distribution about an average as the number of repetitions increases without bound, without providing any separate intelligibility for the individual event. In the instance of an assembly, probability can now also apply to that single event which is described by the totality of the assembly, and it gives an intelligibility to that event as the number of systems in the assembly increases without bound. In the second case one has a "nonisolated" system, by which is meant either a system whose state is not exhaustively described or a system which is interacting with other systems. The same two possibilities present themselves here and, *mutatis mutandis*, the same can be said of them. All of which comes down to the fact that probability can yield intelligibility for the individual event only if that event can be considered as the composite act of an indefinitely large number of identical systems (for example, radiation from a radioactive substance composed of many identical atoms). If one should try to speak, on the contrary, of the probability of this pencil falling with a certain acceleration when it is dropped now, what is really meant is something describable as subjective confidence in the result, rather than a mathematical probability of that result. The two are by no means the same.

From this analysis one comes immediately to the realization that probability can yield no intelligibility for an understanding of the universe as a whole. For by definition the universe is an example of the first instance of the first case. It is a single system, since there can be only one universe; it is not interacting with other systems, because there are no others; and its state is exhaustively described, since one is dealing with the universe as a whole. The only possibility of applying probability theory, then, would be found in an analysis of an indefinitely large number

of repetitions in time of the complete universal process—which is another way of saying that probability theory can yield no intelligibility about the universe as a whole.

This fact has serious consequences for Father Lonergan's synthesis. For if he asserts that statistical laws are in theory absolutely necessary for our understanding of the physical world, then he implies that because knowledge is all of a kind the universe as a whole is, in the last analysis, by nature unintelligible. (David Bohm has recently arrived at just such a position through positing an infinite descending series of levels of explanation, in which treatment on any one level can handle the effects of the lower levels only statistically. See his *Causality and Chance in Modern Physics* [London: Routledge and Kegan Paul, 1957], pp. 167-68. Father Lonergan also speaks of an infinite sequence of influences for any given event [see pp. 95, 113], but it is not clear just how seriously he means this.) But if probability in the universe as a whole is unintelligible, then for Father Lonergan there is no dynamic direction and hence no finality (see p. 447). If probability is necessary, then the universe itself as a whole is not intelligible, so that the real is not completely intelligible and he cannot conclude, for example, that God exists (see p. 672).

No reader can expect the major work of a creative thinker to be easy going. Father Lonergan's book is not easy reading. The reader can, however, with some right expect the book to be clear. Father Lonergan is not always clear, owing in large part, I think, to the fact that his book is overwritten. When, for instance, he wants only to say that because the transformation equations of special relativity have factors of the form $\sqrt{1-\left(\frac{v}{c}\right)^2}$ we must consequently have v smaller than c lest we get the square root of negative numbers and hence imaginary lengths and times, Father Lonergan writes instead: "Observers may be moving with any linear or angular velocity provided the motion is continuous and provided it involves no excursions into the imaginary sections of a manifold constructed by introducing complex numbers" (p. 41). Something more functional and less ponderously elaborate would have put in better relief the clean, hard lines of the argument's structure throughout the book and would have reduced the reader's chances of passing over one or another of the author's genuinely profound contributions on the assumption that it is merely another obscure expression of a simple idea. Yet the fact that *Insight* at its best is keenly trenchant, and at its worst only obscure, is perhaps commendation enough.

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***Introduction to the Philosophy of St. Thomas Aquinas.* Vol. III, *Psychology.* By H. D. Gardeil, O.P. Trans. John A. Otto. Saint Louis: B. Herder Co., 1956. Pp. xiii + 303. $4.00.**

This text is the third of a series in systematic philosophy by Father Gardeil. The other volumes—I, *Logique;* II, *Cosmologie;* and IV, *Métaphysique*—are presently being translated into English. Father Otto's translation of volume III, *Psychologie*, is quite readable and is faithful to the French original.

Father Gardeil begins by pointing out that Thomistic psychology is open to two distinct, yet authentic, presentations. The philosophical approach follows the order of Aristotle's *De Anima* and argues from activities to powers to nature. The theological approach, on the other hand, is used in the *Prima Pars* and begins with the soul as a created image of God. Since this volume is intended as a text in philosophy, its basic outline is determined by the former of these two approaches. However, Father Gardeil does not hesitate to include St. Thomas's position on such problems as the knowledge of the separated soul, the human *verbum* as a created image of the divine *Verbum*, the beatific vision, and so on. Even though the treatment of these problems is indicated as theological and based on faith, this reviewer feels it would be better to let the professor supply these discussions for the inquisitive student when the occasion arises. The uninitiated student reader is too frequently unaware of a shift from a philosophical to a complementary theological knowledge of man.

Father Gardeil views psychology as falling into two divisions. On the one hand, there is "a philosophical or metaphysical psychology which seeks to determine the highest principles of the science; on the other hand, a scientific psychology, scientific in the modern sense, which occupies itself with a more immediate level of interpretation" (p. 5). This distinction is based on ultimate and proximate levels of interpretation which apparently fall under the same formality of knowledge. If so, the data and conclusions of scientific psychology should be usable as the starting points of the more ultimate philosophical or "metaphysical" understanding of man. Father Gardeil does not explain how this might be done, nor does he attempt to do it. Rather, his arguments are derived from classical texts on psychology in Aristotle and St. Thomas, frequently as understood by John of St. Thomas.

A distinctive feature of Father Gardeil's book is the emphasis placed on intellectual knowledge, the discussion of which occupies almost half of the formal text. The senses perceive only the external accidents of a

material object (p. 57). On the other hand, the proper object of the human intellect is the *abstract* nature of material being. By "abstract" Father Gardeil means "the nature considered apart from all those conditions by which it exists as singular and individual" (p. 112). Two equally unsatisfactory interpretations seem to be available here. Either there is an abstract nature in singular, material being (shades of medieval Platonism!); or else, if the proper object of the intellect is a nature abstractly considered, then the intellect knows its concept (shades of idealism!). What has happened to the distinction between *id quod cognoscitur* and the *modus cognoscendi*?

The progressive growth of intellectual knowledge occurs as follows. The first apprehension of the intellect is "essence, but under its most common aspect, namely, being" (p. 159). From this initial, essentialistic notion of being the intellect expands its knowledge in two orders. In the order of essence it discovers the specific differences of things and thus locates them in the scale of genera and species. In the order of being the intellect "elucidates the most universal determinations of the notion of being" (p. 160). This latter is metaphysics. Father Gardeil arrives at this essentialistic notion of philosophy because for him, unlike St. Thomas, human knowledge is an analysis of concepts. Only three pages (pp. 162-3, 175) are devoted to the judgment. The function of judgment is to compare and join further determinations with the general notion of being. One formulates even the judgment of existence by seeing, through a reflection on the origin of knowledge in the senses, that actual existence was implicitly contained in the first act of the mind. For Father Gardeil the judgment of existence is "the completion and consummation of the act of understanding." What the author really means by this is that existence is understood as the culminating constituent of essence.

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